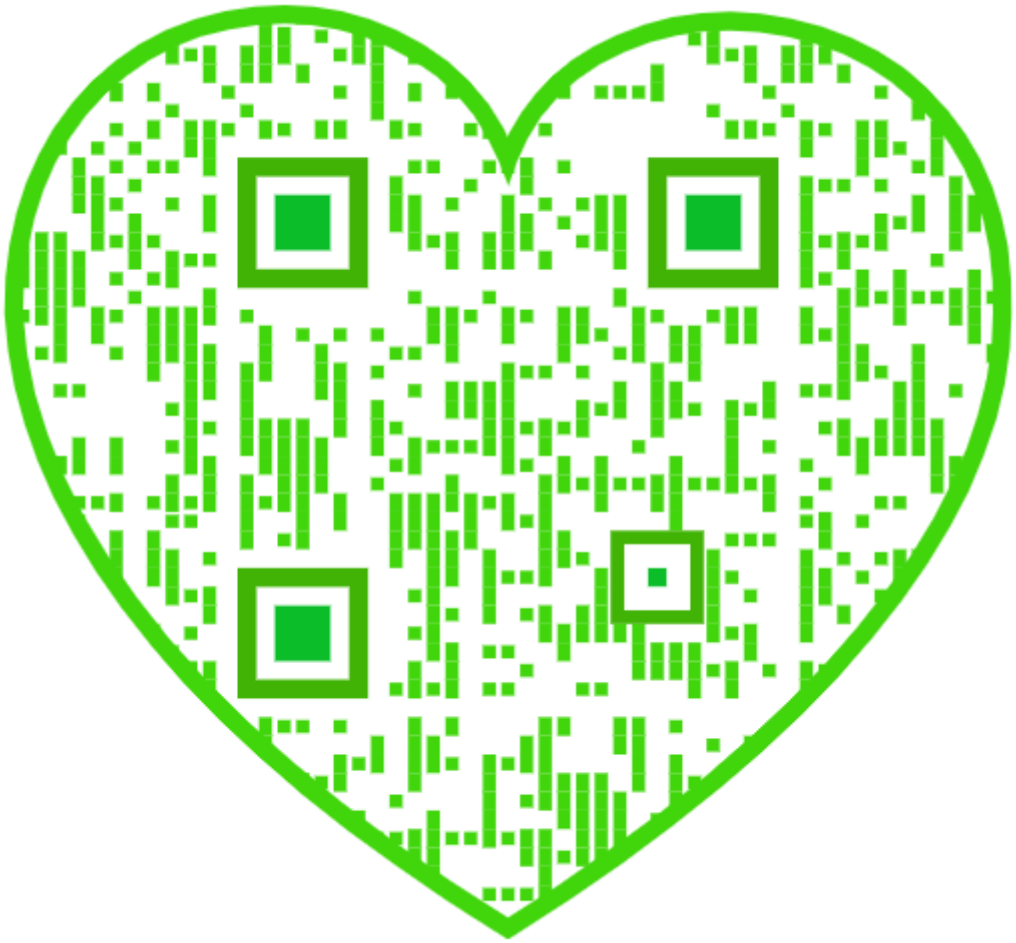

Class HB171
Book .5
.D35
1901

OUTLINES

OF

ELEMENTARY ECONOMICS

BY

HERBERT J. DAVENPORT

AUTHOR OF "OUTLINES OF ECONOMIC THEORY"

New York

THE MACMILLAN COMPANY

LONDON: MACMILLAN & CO., LTD.

1901

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Set up and electrotyped September, 1897. Reprinted August, 1898; September, 1899; June, 1901.

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NOTE TO THE TEACHER

THE importance which the author attaches to the method of suggestive questions is perhaps sufficiently indicated by the space which he has assigned thereto. The purpose is several-fold: —

(1) To summon to the aid of the student his fund of observation, experience, and crude generalization. This is the essential feature of the inductive method as applied to the study of social phenomena;

(2) To effect, through economics, a new correlation of the student's mental acquirements;

(3) To stimulate the interest of the student through the association of the discussions with the familiar facts of his every-day experience; and

(4) To concentrate his attention upon the difficulties which will furnish the basis for the discussion which is to follow.

It is very possible — indeed it is intended — that out of many of these questions the student will merely become puzzled. It is believed that this is pedagogically helpful; answers have no place except as following questions. It must happen also that one question be found of profit to this or that student, while entirely failing to appeal to a third.

The author has made an earnest effort to avoid definitions and sub-classifications, and in general, everything which pertains to what may be called the catalogue method of presentation. Outside of the work which the questions require of the student, the treatment is studiously theoretical rather than descriptive.

Rightly taught and rightly learned, political economy is of the utmost value as a culture study, as well as a preparation for the duties and activities of practical life. In neither of these aspects can any training be adequate, or the results of it steadfast in the mental equipment, if the treatment is merely descriptive and discursive, instead of offering a close-knit and coherent body of elementary theory. Students who are able to master the abstract conceptions of algebra and geometry, need experience no difficulty with the simpler aspects of economic

theory, if these are presented with such simplicity of statement and arrangement as the subject permits.

While, however, as is already indicated, it has not been the purpose of the writer to make an easy text-book, the method is such that the measure of difficulty or of exhaustiveness in the treatment will largely rest in the decision of the teacher, in view of the age of the pupils and the time at their disposal.

The teacher is advised to require, in general, that written answers to both the introductory and the review questions be brought to the class-room. It is important also that the answers to the introductory questions be attempted, or a discussion of them had in the class-room, before the text is read by the student or appointed him for study.

In conclusion, the teacher is especially cautioned against the notion that he is expected to furnish for himself or his class a satisfactory answer to every one of the questions, or even in all cases to divine the drift of them. Not a few of the questions the author would himself be unable to answer. In many cases the purpose has been merely that the difficulty should be honestly met, or again that it be brought

out clearly that the problem suggested is not one requiring the attention of the economist as such.

HERBERT J. DAVENPORT.

CHICAGO, August 10, 1897.

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ELEMENTARY ECONOMICS

CHAPTER I

SCOPE OF THE SCIENCE

What do you suppose Political Economy is about? Would the study of the Australian ballot system fall within it? The popular election of senators? The silver question? Money generally? The tariff question?

Do you see any way in which Geology could bear on what you suppose to be economic questions? Geography? History?

Ought the economist to understand the processes of the iron industry? The science of electricity? Chemistry?

Have these anything to do with Political Economy? How?

Is more required than that the economist understand the laws and facts common to industries in general?

What are scientific laws as distinguished from moral laws and civil laws?

Is Economics concerned with the relations of employers with employees?

Does the study of markets, values, and prices require the examination of transportation questions? How?

How does climate become important in Economics? Waterways? Mineral resources? Human wants and needs? Religion? Morals? Public health? General intelligence?

Why should any one produce wealth?

Do you know any one who has more wealth than he needs? Than he thinks he needs?

Is either condition likely ever to become common?

Does demand limit consumption, or is it supply?

What is the practical limit to consumption?

Does average consumption depend upon the amount of money in the world, or upon the amount of wealth produced?

Suppose there were no money, how could the farmer use his grain to procure machinery or clothing?

Do you see any respect in which this would be inconvenient?

In what sense can money be termed a common denominator of values?

Why we use money.

1. If one were to offer you a ten-dollar bill on the condition that you should always keep it, you probably would not greatly prize the gift. Even were a ten-dollar gold piece offered you, and you were bound to keep it as such, not making it over into something of service or ornament, you would not very warmly thank the giver. Money is good to buy things with. Men in society and societies as a whole are well off, not in proportion to the money they have, but in proportion to what they can get to consume. We are used to selling things for money and to buying things with money, so that it comes to

stand with us as the most general symbol or representative of the things which we buy. Men commonly reckon their riches in terms of money, as we commonly state the value of each commodity in money. It would be inconvenient to exchange sheep for cattle, or tooth-brushes for iron. When we go to the concert, it is not practicable to pay in hay, or chickens, or jack-knives. The doctor or the newspaper man objects to garden truck as pay. It is better for all concerned to pay in money and to allow the receiver to expend the money for the things he may desire. We use money as a common denominator just as, in arithmetic or algebra, if we are going to work in fractions, it is most convenient to reduce these fractions to a common denominator.

2. But what things we can get with our money, and not the money itself, is the important matter. People could get on without money, making their exchanges with each other directly by trade or barter, though doubtless this would be inconvenient. So people in ancient times used cattle as money, the Indians in early colonial days used beads or wampum, the Virginia colonists tobacco, and even of late years in

Things and not money the important fact.

some parts of the South, twists of perique tobacco have served as the medium of exchange. The use by children of pins in their small commerce of store-keeping is a familiar fact.

How much any people can have to eat and wear and enjoy — its share in the good things of life — must depend upon how much is produced. Consumption is limited by production. It is a question of factories, and herds, and crops, and not of money. Money is the measure — the common denominator of value — the medium of exchanging goods between men — and not the cause or the basis or the test of well-being. Doubling the amount of money in a country would not double the production of the fields and factories, or the strength and skill of human beings. All these would remain as they were before. Each of us would like to have his own money doubled, just as each of us would like an increased number of orders or of coupon books upon the grocer or dry-goods man. But increasing the coupon books would not increase the amount of goods which the grocer or dry-goods man has in his shop. Increasing the money does not increase the commodities. The aggregate production is the essential fact in any society. Who has the

orders or coupons for it — the money — is a question of who gets most in the division or distribution of the goods produced. We therefore call the aggregate production of a nation or of a society the national or social *dividend*. The average of consumption is found by dividing the aggregate production by the number of shares in it; that is to say, by the population. Average consumption is of the nature of a quotient.

Thus we see that those nations which used to make great efforts to acquire and *keep* in the country money or jewels and precious stones, were mistaking the symbol for the substance. It is as if a nation should regard itself as rich in proportion to its yardsticks or coupon books, or as if a farmer were to estimate his crop by the number of wagons he had in which to carry it to market.

To say that the love of money is the root of all evil is a conveniently short but inaccurate method of expressing a great truth. Cupidity in some of its forms is the root of endless evil; but people want not money, — they want the things which money will buy. Only people with diseased brains care for money as a thing in itself. When we

Love of money is love of wealth.

speak of the love of money, we use a sort of shorthand expression for the love of the things in life which are bought and sold. Money is the general form in which desires express themselves and temptations present themselves. But human needs and desires are the source of all well-doing, equally with all ill. If we wanted nothing we should do nothing. The evil is in the improper direction and insufficient restraint of desires. Money is helpful because it enables us easily and conveniently to make exchanges of goods. Barter would be inconvenient and impracticable.

3. This brings us to the difference in meaning between the terms "value" and "price." This difference is important in Political Economy, though it is not always observed in common speech. When, in the technical use, we speak of the value of the thing, we mean what it is worth of other things; when we speak of the price, we mean its value measured in terms of money. Thus a horse may be worth two cows, a cow five sheep. Put in terms of price, we should say that the horse was worth, for example, fifty dollars, the cow twenty-five dollars, and the sheep five dollars each.

Value and Price.

4. Political Economy is, in a general way, an investigation of the manner in which men think and act in the business affairs of life, — a study of their activity as related to the things which are bought and sold. Thus we are set to inquire about farms and crops, factories, stores, railroads, banks, wages, interest, rents, values, and prices, and the countless facts and influences bearing upon matters of this sort. Political Economy is not merely the tariff question or the money question, as many beginners are apt to believe, but a great deal more than this, and much of it of a great deal higher importance. Perhaps the following will answer as a fairly accurate statement of the scope of our subject: *Political Economy treats of men in their commercial and industrial activities from the standpoint of markets and values.*

Political Economy defined.

SUGGESTIVE QUESTIONS

Define, as far as you now can, the terms "value" and "price."

If things were all doubled in price, what effect would this have on values?

Mention some relations of Chemistry to Medicine. Of Mathematics to Physics. Of Geology to Zoölogy.

From the point of view of how many sciences can you discuss a stick of wood?

CHAPTER II

MAN AND ENVIRONMENT

Why is the polar bear white?

Why are many snakes striped?

Why are some forms of life able to change in color to fit the color of the background?

Why have northern animals heavy coats of fur?

As far as we can see, is the world adapted to the forms of life upon it, or are the forms of life adapted to the world?

Illustrate your answer from Botany and Zoölogy.

What becomes of such forms of life as fail of adaptation? What of the forms best adapted?

What is the "struggle for life"?

What influences limit or tend to limit the numbers of buffalo, trout, flies, rats, squirrels, men?

Are similar influences at work in the vegetable world? How?

The cultivated strawberry set in the field reverts to the type of the wild berry. Why?

What influence would bring it back to the garden type? Why?

Explain the fact that orchard apples have much pulp.

Of what utility is the pulp to the wild apple?

Mention some kinds of seeds distributed by animals.

How may color help toward distribution?

What is Natural Selection?

What is Artificial Selection?

What is Correspondence to Environment?

Why are tropical races dark? Northern races vigorous and industrious?

Mention such different elements of success in life as you can.

On what does the raising of a good crop depend?

Has a good chance in life much to do with success?

Why not raise bananas in Canada?

Could Shakspeare's plays have been written in the Sioux language? Thought out in a Sioux civilization?

Are there any millionaires in Greenland? Why? Where are they found? Why?

Is an opportunity to get a good education to be regarded as part of yourself or part of your surroundings?

When you have obtained the education, which is it?

Mention such necessary conditions as you can to the prosperity of a great silk factory.

Apportion these elements into two classes, (1) those which are human in their character, (2) those which are not.

Apportion these elements into, (1) those which pertain to the owner, (2) those which pertain to his surroundings and opportunities.

Describe the *social* conditions necessary to the existence of a great silk factory in (*a*) public tastes, (*b*) transportation, (*c*) machinery and mechanical skill, (*d*) motive power, (*e*) social security and morality, (*f*) laws, (*g*) international relations.

5. Polar bears are found to be white; snakes which live in the grass are green or striped; races of men living in hot climates are generally dark. We say that these things are due to the condi-

Adaptation to environment—actor and opportunity.

tions in which these different orders of animal life have lived. Bees taken to a climate of continual summer are said to lose their habit of accumulating honey. The fish in Mammoth Cave are without eyes.

Not only in animal life, but in vegetable life as well, similar facts are observed. Large trees grow in fertile soil and fostering climate, the finest vegetables in rich and well-tilled gardens. On the other hand, the cultivated plant set in the poor soil of the field to make its way against grass and weeds reverts to the type of its wild ancestor.

Botany and Zoölogy should already have taught the student this great law of adaptation in its two aspects of correspondence to environment and of survival of the fittest. Lack of correspondence means disadvantage in the struggle for growth and life. This principle holds for man as well as for the lower orders. Human life and human society must be studied with constant attention to the conditions which surround and limit activity and development. Individual success in the contests of social life is not purely a question of pluck and brain; something must be allowed for education and opportunity. Good legs and a fair field are

both needed for fast running. So in economic relations both actor and opportunity require examination.

6. Thus the human race in its relations to its environment, and the individual of the race in his relations to an environment of which the other members of his race are themselves a part, are the subject matter of all economic and social study. Man, as one term of the science, is regarded as standing over against an outside world of fact and circumstance. He is neither entirely the master of his fate, nor yet entirely the puppet of the forces by which he is surrounded. He is himself a force, a centre of energy and activity. He is one of the facts in the complex interplay of human with natural energies. If he receives, he gives; if his environment rains its influences upon him, he puts forth his own efforts in adapting self to environment or environment to self. He strives and resists and reacts. George Eliot has put the case helpfully, when, in supplement to the half-truth "Our deeds are fetters which we forge ourselves," she adds, "Aye, but I think it is the world that brings the iron." The history of human development is the story of what cir-

Man is a force.

cumstance has done for man and man for circumstance — the play of outside forces upon him and his reactions thereupon. There are thus two forces in the problem of history, — man and nature. The resultant is the direction of human development.

7. This is not a difficult notion. As has already been stated, it is merely one aspect of that which men of science call the law of adaptation or of correspondence to environment. Life, for each one of us, is a question of what there is in us plus what is outside — of our powers and energies in the face of our surroundings and opportunities. Give Crusoe his island, what will he do with it? This is in part a question of Crusoe and in part a question of his island. Likewise for races the problem is on one side a matter of character and capacity, on the other, of surroundings and opportunity.

No matter now which is primary.

8. It is unnecessary for the purposes of Political Economy to push the question into an inquiry as to which of these two forces in human development, if either, is the primary fact and which the derivative. We may, for example, regard coral polyps as a product of the sea; it is

none the less true that once existing they not merely suffer but work the processes of sea change. It constantly occurs that a result becomes in turn a cause, — as, for example, in Chemistry, where a product of combination or decomposition furnishes a basis for a new series of chemical changes, or in Physics, where in a row of blocks one falls as the result of an impact received, and by delivering its impact causes the next to fall, or again in Chemistry where combustion liberates gases which themselves furnish material for further combustion.

Economic science is not, however, greatly concerned with the history of human development; the main purpose of our discussion is to fix clearly and definitely the first important distinction in economic theory — the division of its subject matter into the two terms of man and environment, the human and the non-human elements in the problem. Taking man as he is in relation to his environment as it exists, Political Economy treats of him in his commercial and industrial activities as viewed from the standpoint of markets and values.

9. The production of wealth by man, so far as it does not rest with the character of the actor himself, must therefore find its expla-

nation in the nature of his environment, — in the elements, in the varying conditions of temperature, rainfall, sunshine, humidity, healthfulness, etc. — in the soil, or, more accurately, in the land, its fertility and workability, its mineral resources, its convenience for industry and commerce; in the varying sum of natural forces more or less within the control of man, such as winds, tides, electricity, gravitation, and steam. This enumeration is of necessity both incomplete and inexact. Climate cannot be definitely distinguished from winds, electricity, and light, nor can natural forces be treated apart from questions of navigation and convenience for commerce. Light, which may be used as a natural force for power or for the purposes of chemistry or art, is, from another point of view, an important factor in the fertility of the soil. But it is important merely to hold in mind that wealth depends upon the correspondence of two factors, — (1) man himself, (2) the conditions surrounding him. He may, in large measure, modify surrounding conditions. But it will still remain true that the arctic regions and the tropical deserts do not offer favorable oppor-

Production of wealth depends on (1) man, (2) opportunity.

Environment.

tunities for his wealth-producing activities. He may adapt himself in some degree to an unhealthful climate. But, in some measure, an unhealthful climate must exercise an unfavorable influence on his powers. He may make for himself artificial lines of communication, but rivers, lakes, and seas will retain an economic importance for this purpose. He may exist making small use of the opportunities offered by natural forces, but it will remain true that in these rest the possibility of the greatest efficiency and the largest field for economic progress.

10. Turning to a closer examination of the factor, man, we find wide differences between different races of men, and between different men of the same race. We need not assert that all of these differences are due to environment; clearly enough, however, some of them are. The human race exhibits the effects of correspondence otherwise than in color and physical power. Not only have men been profoundly influenced by their surroundings in health, strength, and stature, but also in habits, character, and intelligence. The student need only call to his aid his knowledge of Geography to find this many

Man as affected by environment.

times verified. Civilization is too difficult a problem in the frigid zones for any race yet fully to have solved it. The problem of mere existence in the tropics is so over-easy as to have degraded man, through stagnation and ignorance, into an incapacity for civilization.

How explain high and low wages?

11. The student should now be able to appreciate the truth that wherever there is found a high stage of civilization, or great prosperity, or a high average production and consumption of wealth, the explanation must always lie in the character of the people under examination or in the character of the country in which they live. If the people in China have less per capita to consume than the people in France, it is because the Chinese produce less per capita than do the French; and the explanation of this must be found in the lower vigor, or skill, or energy, or intelligence, or scientific attainments of the Chinese, or in the unfavorable character of the opportunities in which they live. If Americans are more prosperous and live better than Europeans, it must be that Americans are better producers, — more active, more inventive, more enterprising, — or that the soil and climate and other natural resources of America offer more

advantageous opportunities for production. No one has great difficulty in understanding this principle as illustrated in the affairs of everyday life. Long ago it was remarked that not even the most skilful workman could make bricks without straw. Bad tools place the best of mechanics at disadvantage. Men do not gather grapes of thorns or figs of thistles. It takes more than a good farmer alone, or than a good farm alone, to make a good crop; this needs both farm and farmer. Only opportunity improved is success.

12. It is obviously true that the producing powers of men are, in large measure, matters of physical strength and endurance. Perhaps an equal measure of importance should be ascribed to agility and intensity of effort. The German economist, Wilhelm Roscher, writes in this regard: —

Man in energy and effort.

"According to the reports of English manufacturers an English workman produces on an average almost twice as much as a Frenchman; the latter in turn more than an Irishman. An English wage-earner who had worked in a French factory speaking before the Parliamentary Committee gave his opinion of the French as follows: It cannot be called work they do; it is only looking at it and wishing it done. Thus, for example, a good English spinner with an eight-hundred spindle machine could produce

daily sixty-six pounds of yarn; a Frenchman only forty-eight pounds. . . . The report of an Agricultural-interest Commission places the North American workman above the English in good conduct, fidelity, and interest. A Berlin woodcutter accomplishes as much in ten days as an East Prussian in twenty-seven days. (Hoffman.) English planters on the Hellespont prefer to pay Greek laborers ten pounds sterling a year and their keep rather than Turkish laborers three pounds. So the Malay field-laborer gets two and a half dollars per month, the Malabar four, the Chinese six."

Perhaps equally important in production are the distinctively moral qualities of men, and the social and moral conditions in which they live and for which they are largely responsible.

Moral qualities.

Under modern conditions every corner of the world does business with almost every other. Business affairs are complex, of enormous magnitude, and highly centralized. Great factories, employing thousands of men, sell goods all over the world. Their force of officers, clerks, and agents is necessarily large. The system of buying and selling on credit is widespread. Business must therefore be largely done on terms of trust and confidence. A high moral development in certain directions is essential to the success of this system, and any society lacking in this respect must suffer thereby. Not only

this, but under present conditions most men must be wage-earners serving under employers. The productive effectiveness of society must therefore largely depend upon the good faith of the employees.

No advanced society can reach its highest possibilities in production if men are not free to work for their own benefit and, if they so desire, under their own direction. Labor must be voluntary or it will not be vigorous and care-taking. Slavery or any other form of severing reward from effort, weakens the springs of motive, while at the same time relaxing the energy of those who wrongly profit thereby. Feudalism in the middle ages suffered by this defect.

Liberty.

Likewise, no society which, through disorder, crime, war, or over-taxation, unsettles the connection between industry and reward, can fail of enfeebling its productive forces. Security of life, property, and investment is essential to high economic efficiency.

Security.

Again, in no society in which people lack in forethought for the future will work go on, unless under stress of immediate need. The ability to wait, to see ahead, and to provide for the far-off want, drains the

Forethought.

land, clears the forests, plans the machinery, builds the railroads, and constructs the factories.

Intellectual powers and acquirements.

But most important among the characteristics of man as producer are his intellectual powers and acquirements. If we compare modern industrial processes with the methods of ancient times, we get some notion of the importance of science and art in production. Especially in the world of economics is it true that knowledge is power. The savage made an enormous step forward when he acquired the knowledge of the bow and rod. Tools increase by many fold the effectiveness of human energies. But when, by the use of machinery, man has harnessed to his aid the forces of nature, the field of progress is infinitely widened. By spindle and loom he multiplies his product by hundreds. Steam and electricity, the printing press, the cotton gin, and the countless contrivances which make of every county fair a collection of marvels, and of every world's exposition a display of miracles — these are the fruits of that civilization into which each one of us is born as to a free heritage. And remember that behind the art and the skill in all these processes and methods,

there is a world of pure science. No one has grown more grain than the chemist. The difficult problems of industry are wrought out in the laboratory of the specialist. The investigators and the inventors have revolutionized the opinions and the organization of the modern world. The ruling forces of civilized life are the intellectual forces. The moral code of eighteen hundred years ago left, indeed, not much to be added. Laws, governments, institutions, science, art, invention, and discovery, — these are the facts which measure the distance between civilization and savagery. In these directions the progress of mankind is seemingly without limit.

SUGGESTIVE QUESTIONS

To what zones is civilization mostly confined? Why? Where did it originate? Why?

In which direction, north or south, has it moved? Why?

What physical reasons do you find for the lead which western Europe has taken in civilization?

What is the trouble with the polar regions in this regard? With the tropics? In (*a*) human needs, (*b*) ease of satisfaction?

What determines the character of industries in Canada? In Colorado? In the Southern States?

What natural resources have made England the leading manufacturing country of the world?

Explain by natural advantages England's commercial and maritime supremacy.

In what sense was the American Rebellion a question of climate?

CHAPTER III

UTILITY AND WEALTH

Can matter be destroyed? Or created? How about force?

What is the law of the conservation of energy?

What do we mean when we say that coal has been produced?

What change is wrought by combustion? By decay? By digestion?

In what respects do human needs coincide with the needs of the brute creation?

In what respects are there differences?

Do brute needs expand greatly in scope or intensity?

Why do men produce wealth?

Do you think of any attribute common to all things which are desirable?

If you had ten dollars to spend what would you do with it?

Would you probably buy one thing or several?

Which thing would you choose if you had the money to buy but one?

Are things of unvarying desirability to all men? Of all nations? In all seasons? In all ages? Give examples.

What conditions must exist (*a*) as to men, (*b*) as to the thing, in order that it be useful?

Books are not useful to savages. Why? But are useful to civilized men. Why?

Is this a material difference?
Is usefulness a quality or a relation? Why?
What are the two terms in the relation?
What is matter? What is it made of?
What is an atom? How do you know that there are any?

Desires and utility.

13. The French economist, Gide, neatly observes that "The concern of the economist is with the wants of men, — of the lawyer, with his rights, — of the moralist, with his duties." Man is a creature of needs and desires. Primarily, and as a condition to his mere existence, he requires food, commonly also clothing and shelter. He has appetites for art, music, philosophy, cigars, and vice. He desires comforts and luxuries, protection from the violence of nature, from the wrongs of men, and from the attacks of beasts and microbes. He wants his steak broiled and his clothes brushed. He likes to be preached to and sung to. He wants books and boats and race-horses, laces, parks, theatres, and eye-glasses, chairs, balloons, railroads, panoramas, fortune-tellers, phrenologists, and humbugs. In a secondary way he wants the machines and inventions and tools and processes by which his primary wants are helped towards satisfaction. Look at the price-currents, the tariff schedules,

the inventories of stocks in trade, or the advertising pages of the daily paper, and you get some notion of his manifold desires. He wants also love and pity and respect and place, and sometimes these also are bought and sold upon the market. All these things he wants because they minister to his desires — that is to say, because they are, in his opinion, useful to him. The one characteristic common to all objects of human desire is this quality of service to a human requirement. This attribute of serviceability the economists term *utility*. That is, the term utility is used in economics to mean *desirability* in relation to a person who desires. The thing or fact possessing this attribute of utility is called a *good*. *Wealth includes all material goods that have value.*

14. Note that the commendable character of the desire in question or the good sense of its satisfaction is not suggested in the economic use of the word *utility*. Men put forth effort and undergo privation for the possession of whiskey, cigars, and burglars' jimmies, as well as for food, or statuary, or harvest machinery. As long as men are influenced by evil purposes, or by ignorance, to buy and sell foolishness and evil, so long the student

Utility is not a moral question.

must recognize these desires as economic facts, and the commodities as of market standing. Whether we like it or not, utility, as an economic term, means merely adaptability to human desires.

15. To produce is not to create. So far as we know, neither matter nor force can be created or destroyed. The law of the conservation of energy appears to be of universal validity. Waste and decay are the mere breaking apart of matter — the taking on of new forms — the undergoing of new distributions. Motion may be changed to heat, heat to electricity, but the equivalence is constant if all wastes and leakages are allowed for.

Men do not create but rearrange.

Economic production is the putting of things into places, combinations, or times so that the things take on or increase their usefulness — that is to say, acquire fitness for satisfying human needs and desires. The growing of wheat, for example, is merely a process of selecting and combining materials already existing in the earth and the air. Dirt may be roughly described as the right thing in the wrong place. A drop of syrup on the floor or on the tablecloth is filth; in a dish it is food.

So, to change the location of a thing, the mere act of transportation — for example, raising iron from the mines or bringing soda from the plains — is an act of production. Likewise mere preservation may, through lapse of time, serve as production, as in the keeping of ice from winter to summer.

16. Thus to measure wealth in any degree in terms of material existence is misleading. There is no more matter in the world at present than there was a thousand years ago; but matter has been modified so as better to answer human needs. The house which was mere clay or stone, the cloth the material for which was not grown but was in the earth or the air, are now wealth to mankind. Work produces no new matter, no new forces. The applicability of matter and force to human uses does change. The iron in the earth mined, melted, freed from impurities, hammered and fashioned, forms a pocket knife. Nothing has been added to the matter of the earth; something has been added to the wealth.

There is no material measure of wealth.

Thus as human needs, desires, and knowledge expand, there is, by that very fact, room for an increase in wealth. "Of the one hundred

and forty thousand species of vegetable life we find only three hundred of sufficient value to cultivate; and of the thousands of species in the animal kingdom we make use of but about two hundred" (De Candolle).

How wealth increases.

17. Wealth therefore develops along two lines: (1) by changes which man impresses upon the outside world in making it more fit for his uses; (2) by changes in man himself — in strength, in knowledge, in desires — by which he becomes better able to make use of the outside world. Pianos could not be wealth in a society lacking musical tastes, or books wealth to savages. That a mineral becomes wealth presupposes a human use to which it may be put, an ability to mine the mineral, and a knowledge to adapt it to use. It is this capacity of service, this attribute of utility, which marks all objects of desire and brings them within the broad classification called *goods*.

How services differ from wealth.

18. There are, however, goods which are commonly termed not wealth but services. A book is wealth, or a sheet of music, or a piano. These afford us pleasure or advantage. They may be preserved, handled, possessed. That is to say, they are fixed and embodied in matter. But

we are equally and as truly served by the advice of the physician, by the efforts of the singer or the actor, by orators, preachers, and teachers. These goods, which are termed by the economists services, are very important facts in life, and furnish the occasion for a large share of our expenditures. On the street car or the railroad we pay for being carried. The policeman, the judge, and the lawyer supply us, in security, direction, and advice, with things we acutely need. From household servants we purchase attention, care, and attendance. In truth, it is sometimes hard to draw the line between services and commodities. We eat the broiling of our steak as truly as our steak. Thus the performance of a service must be accounted an act of production, since it is the creation of utility.

SUGGESTIVE QUESTIONS

What do you mean by intrinsic or extrinsic utility? Intrinsic or extrinsic value?

Are charms and relics now greatly prized? Have they changed their intrinsic qualities?

Are color and taste intrinsic qualities?

Did Niagara roar before there were ears? What is sound?

Is heat a quality of an outside thing, or a mere effect upon the senses?

Is the difference in value between winter and summer ice an intrinsic or an extrinsic matter?

Why not call singing wealth? or acting? or preaching?

A dog has been trained to guard sheep; is this an increase in wealth? Is it a material or an immaterial increase?

Is the ability to sing wealth?

Define services.

UTILITY AND WEALTH (*Continued*)

Is food wealth?

Is the strength which comes from it wealth?

Is medicine wealth?

Accurately speaking, can any one's face be his fortune?

Suppose that A devotes a year to clearing the land for a farm; B to constructing a locomotive; C to perfecting an invention; D to the study of a profession; which of these are cases of wealth-production?

Are intellectual acquirements wealth?

Is health wealth? Eyesight? A good voice? Strong muscles? Inherited character? Our digestive apparatus? Our bodies? Our minds?

19. A distinction must be made between those things in the outside world which are useful to man and those things which, in the last analysis, are a part of man himself. Bread, for example, is clearly enough an outside good, an external thing adapted to human needs. How after it is eaten? We say that it has been consumed.

Man, and things outside man.

It no longer exists as bread. Its service has been rendered in maintenance of life or increase of strength. But how shall we regard this result, this strength? In the primary division of economic facts into man and environment, does bread fall into one classification and strength into another? The thing was bread; it is now life or strength. Is it now something possessed by man, or is it a part of man himself? Is it subject or object, possessor or possessed, man or environment?

Man is the beginning and the end of productive effort. The creation of utility is purposed by him for his consumption. He puts forth effort that he may enjoy its rewards. The economic cycle begins and ends in him. He works that he may live. He is the producer and not the thing produced. The more strength the better producer — later the larger product; but the strength is not product. So the mixtures prepared by the chemist, and the doctor's compoundings of medicinal gums, fall within the class goods, while my good health to resist contagion and your good sense to avoid it are ranked as human attributes.

Only the outside things are goods or wealth.

Note, however, that while the knowledge

which avoids disease is a human attribute and is not wealth, the outside fact from which this knowledge is obtained, the book, or the advice of the physician, is either wealth or service. The mental power of the physician, his knowledge, however, is not wealth; it is the source of his ability to do a useful thing, to speak a word or write a prescription which shall be of advantage to another human being. This knowledge is a part of the physician's equipment for the production of utility. When this equipment shall come to service the result will be a good. As equipment, however, it is not utility or good but physician.

QUESTIONS

Define utility.
Why is not knowledge wealth?
Are all outside goods wealth?
How about services? What is the line of distinction?

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CHAPTER IV

THE FACTORS IN PRODUCTION

In what respects has man changed his environment to suit his purposes? Give instances.

What things would you need when going into wheat raising? Into piano making?

What different reasons might one have for saving money?

What for hiring money?

What for hiring land?

20. Suppose that there is a demand for some commodity, fish, for example. Given this desire for fish as motive force, we have now to inquire what other conditions are essential to obtaining the commodity. In the simplest possible case two facts must concur, — there must be a fisher and a place for fishing, — man and environment.

Are man and opportunity sufficient?

But ordinarily something more than the primitive environment is necessary; in most cases of production some sort of tools or appliances must be had. Suppose it to be raw cotton that one wants to produce. There must at

least be seed; there ought to be various appliances to be used in the process of cultivation. But now suppose that the cotton is intended to be made into cloth. In this case there must certainly be more than worker and opportunity to work; there must also be something to work with.

Mankind has a world in which to live and work, land to cultivate, streams to make his wheels turn, water to convert into steam, and coal with which to convert it. But something more is needed. Even the primitive fisherman finds it desirable — often indeed necessary — to have poles, lines, and nets. Farming would not greatly prosper with nothing for the case but a farmer and the natural opportunity. The farmer needs tools and machinery; he must do some "getting ready" or some one must have done it for him.

The weaver requires still other and more complicated appliances. At least he must have his hand spinning-wheel and his loom. His work gains enormously in effectiveness when he is able to work in a factory with great power engines to help him, and with the spindle and loom of modern industry.

21. Between man and nature there is, then,

a kind of intermediate term, that which we call capital. The things which are called capital are not a part of man, they are a part of his surroundings, and yet differ from land or nature in this, that they are the result of man's activity; they are an addition to the original condition or opportunity. Ultimately speaking, capital is nothing but stored-up labor.[1] When one wishes to bring about some particular result, it is often best to take a roundabout method. If, for example, a man intends to dig up stones, it may be best, if he has much of it to do, first to make a lever or crowbar with which to apply his strength or multiply its effectiveness. If he intends to raise wheat he will ordinarily find it best first to adapt his land to his purposes by clearing, ploughing, and manuring, or by improving it in some other way, or by obtaining work-animals to aid him in his task. This labor of preparation

Tools and machinery capital.

[1] The student is not to regard this statement as a definition, but as an account of the origin of capital. A machine is a typical example of capital. Ordinarily a machine is produced in some measure by the aid of machinery already existing — that is by capital. So again, the wood work of the machine was produced by the land. But it is none the less true that, traced far enough back, all that which is not due to the original environment is due to the effort which has been applied to that environment. Strictly defined, capital is all wealth, other than land, used to aid in the production of wealth.

is sometimes enormous, as when the giant factory is erected, with all the machinery and appliances which it contains; or when, instead of carrying things upon the back, men build costly roads and bridges, rear beasts of burden, and construct wagons and drays; or, going still further, construct great railroad or electric systems with all their costly and intricate arrangements of tracks, cars, locomotives, and stations. All these extensive preparations for production are really the same thing as the loom or the plough: they are savers or multipliers of human power. We call them labor-saving appliances; they are forms of capital.

Thus within his environment man thinks and acts, works, manages, and contrives. He has his own energies to work with, land and nature to work through and upon; with the help of these he fashions and prepares his different appliances which we call capital.

Factors in production { man ------- { capital.
environment { land.

22. The advantages derived from machinery in production are commonly due to the fact that the machine brings into more effective co-opera-

tion with man the forces of nature. This truth is expressed clearly in the familiar distinction between hand-labor and machine-labor. It is probable, however, that we fail to realize to the full the wonderful possibilities and meaning of machinery for mankind and human civilization. The trip-hammer and the pile-driver strike the blows of gravity. Water power is the pressure of gravity harnessed to the service of men. Niagara is about to turn the wheels of industry for half the cities of the East. The tides and the winds are not yet fully tamed to our uses, but long ago were discovered the treasures of power where the sun has stored up its heat in the deposits of coal. We may yet learn to gather the energy of heat rays directly, as we are now rapidly finding out how to turn to our service the pulse and throb of electric energy. But even ages ago the farmer had learned to plant his seed and wait for the sun and the rain to mature the harvest, while the wind was set to pump the water and grind the corn.

In what lie the advantages of machinery?

SUGGESTIVE QUESTIONS

Mention some of the great inventions. Show whether they have benefited mankind and how.

Mention cases in which scientific knowledge has modified the processes of production.

What effect does machinery have on the aggregate social product (social dividend)? On average consumption of goods?

Does capital help the borrower? How? Society? How?

Does the land produce the crop? Does man produce the crop? Has capital any share in it?

WAGES, PROFITS, RENTS, AND INTEREST DEFINED

Does the wage-earner in the factory produce the cloth? Who else help?

How about the designer of the patterns? The chemist who compounds the dyes? The investigator who worked out the formulas? The capitalist who furnishes the machines? The office-clerk who keeps the books? The foreman who oversees? The owner who directs?

Who produced the building?

Who produced the food for the carpenters and the masons while they worked?

Who paid for the food? Where did he get the wherewith to pay?

Why does the owner want men to work for him?

Why should not the men prefer to do something else?

Why does the owner consent to pay interest?

Would you call interest received on a note profit?

Rent of a house?

A dividend on bank stock?

Salary received and spent?

Salary received and put by?

Wages received and spent?

Wages received and put by?

23. It is commonly true that useful things are produced by the union, in varying proportions, of the different productive agents. Often, however, it is true that the capital belongs to one man and the land to another. It is often true, also, that one man hires other men to work for him. Suppose, for example, that you start a market garden, renting land, borrowing your tools, or the money with which to buy them, and hiring a man and a boy to work for you. You must pay to the landowner something for the use of his land, — to the man who supplies the tools something for his capital, — to your employees something for their work. What is left after your different expenses are covered goes to you as the reward of your individual effort — your thinking, your planning, and your risk.

What factors co-operate in production?

These different compensations are given distinctive names in Political Economy.

Your own reward is profit.
Your laborers' reward is wages.
The landowner's reward is rent.
The capitalist's reward is interest.

Productive agents
- man, remunerated in
  - wages.
  - profits.
- environment
  - capital — in interest.
  - land — in rent.

24. There is room for confusion with regard to this term *profit*.

Necessary to use the word "profit" accurately.

The word is used in ordinary affairs with perplexing indefiniteness. One man means by profit that surplus which remains to him after charging, against the gross gain, interest and rent and a fair compensation for his own services. Another, a storekeeper, owning his own store-building worth $5000 and carrying a stock of goods worth $10,000, makes a gross gain per year on his sales of $4000. This $4000 is merely the difference between the cost price and the selling price of the goods he has sold. It is not unusual to find this whole $4000 included in the term *profit*. A second merchant would insist upon deducting interest on the capital invested in land and stock, say $900, and would regard the residue of $3100 as profit. Another would deduct also the value of his own time and effort, say $1500, and would allow but $1600 to stand for profit. Yet another would look at his inventory of wealth at the end of the year as compared with the beginning, and would regard as profit whatever increase had been made, treating his living expenses as part of his expenses of business,

Were one to ask a real estate speculator what profit he had made upon a lot costing him $1000 which he had held for one year and sold for $1500, he would answer either $500 or $500 minus interest, and if asked what he had done with the profit, he would have no hesitation in replying that he had used it in his living expenses, nor would it ever occur to him in fixing his profit to deduct the wages of his own superintendence. His business is to make profits and to live off them as a wage-earner lives off his wages. So with the trader in grain or live stock. And in no one of all these cases would it ordinarily occur to charge up anything for risk of loss.

Crusoe, if asked at the close of his harvest season what the season's work had profited him, or what wages he had made, would probably interpret the question as an inquiry into the effectiveness of his season's labor after deducting his outlays of seed and the wear and tear of his primitive appliances. If he could have done better on another piece of land, or with a different crop, he would not find it unnatural to say that another course would have been more profitable. In this sense evidently all productive effort is profitable as compared with idle-

ness. Different lines of production are only relatively, never absolutely, unprofitable as long as anything remains above expenditure.

25. The sense in which the term is used in this Crusoe illustration, is the economic sense extended and developed to apply to the complex relations of the business world. In this view profit is one form of remuneration for labor — for human effort.

Profit may be absolute or relative.

The existing industrial system is a competitive system organized upon lines of division of labor and exchange. Social life adds important factors to the Crusoe problem. Division of labor becomes possible only on terms of possible exchange of products. We will suppose, for illustration, that a man needs or desires ten different sorts of commodities which he may, if he will, produce for himself. If he finds that by producing some few or one of these commodities in large quantities, and obtaining the others of the ten by exchanging for them some portion of his product, he can thereby obtain in the aggregate a greater sum of satisfactions than by the other method of direct production, he will make use of the opportunities afforded by exchange. In this he simply follows the

prospect of the greater profit, and if the outcome justifies his expectation his labor is relatively profitable. Even if the outcome is disappointing, his labor may be absolutely profitable.

The further development in the exchange system by which the producer employs not only his own activities, but the activities of others, — immediately in the form of services, or remotely in the form of commodities, — does not involve any essential modification in the nature of profit.

26. Profit is perhaps best regarded as one form of the remuneration of labor, and as essentially in strict parallel with wages. Had usage so decreed, the two terms might well have been merged in the one term *wages*.[1] But as the terms are established in use, profit points to remuneration without the inter-

Distinguished from wages.

[1] The student should be warned that the economists do not agree in the definition of the term *profit*. The earlier economists considered it to include interest and pay for risk as well as pay for time and care. It is now more commonly thought that the returns on capital, as such, should be excluded, being covered by the term *interest;* though it is not always easy in practical business to separate interest from profit.

Accurately the term *profit* seems to mean the wages of him who takes the risk — on whose wealth or credit the hazards of the business rest, and to whom the gains of good management or good fortune are to go. If the profit maker is a borrower or an employer, he guarantees fixed sums in interest and wages.

vention of an employer, — where the laborer is himself the projector (imprenditor, undertaker, entrepreneur, Unternehmer) of the enterprise. Wages indicate the intervention of an employer. Profit may be conceived as a form of wages received from society as employer. Rightly considered, all individual workmen, other than wage-earners, are imprenditors. That enterprise promises to be relatively profitable which affords the prospect of a better return to the imprenditor than with equal sacrifice he may

Lenders and wage-earners have no care of the outcome of the business.

The real difficulty is in what to do with this risk share of profit-maker's return. If men take chances of loss, they naturally look for the greater gain, if the enterprise succeeds. Is this gain a part of profit or something outside? In practical business it is hard to separate this risk share from the rest, just as it is hard to divide interest into payment for the use of wealth and payment for the risk of not getting it back — that is, into pure or net interest and risk interest. The best way on the whole, it seems, is to divide gross profit into pure profit and risk profit.

The objection to this is that, just as when one lends his capital, he charges something extra for risk and calls it interest, so when he puts his own capital at risk in his own business, it seems by analogy that he should reckon his risk-gain as part of his interest on his invested capital. Particularly is this a taking view when we recall that the losses of any enterprise must really be paid out of the operator's wealth. Profit-makers pay losses, when losses come, in their capacity of wealth owners and not of mere operators.

From any point of view the risk question is an awkward thing to handle; but as we shall use the word, pure profit is merely an aspect of wages. This use seems desirable as following out the distinction between man and environment.

reasonably expect in another line of activity. And if no line of activity promises profit, as compared with wage-earning or with production for direct personal consumption, the imprenditor can, without sacrifice, betake himself to one of these courses.

27. In the present form of social organization, that life which excludes exchange and any form of industrial interdependence with one's fellows, is practically out of the question. We may therefore safely consider that some one of the different forms of wage-earning furnishes for each man that form of activity from which the comparative profit of any other activity is to be estimated, and to which, meeting elsewhere with unsatisfactory rewards, he may betake himself as a last resort.

From this point of view, the intimate association of wages, profits, and interest becomes manifest. If wages are anywhere found to be high, profits may also be expected to be high, — in any event as high as wages, — since otherwise employers and self-directed laborers would tend to become wage-earners. Also where labor is productive of large results in goods, capital, which is an indirect application of labor to like ends, may normally be expected

to be highly productive of goods, and therefore to command a high rate of interest.

SUGGESTIVE QUESTIONS

Does nature produce anything? Does it produce everything?

Is man a producer?

What do you call his productive activity?

Is labor the only productive thing?

In what different forms is labor remunerated?

What aids does man have in production?

Does he consume immediately all that he produces? Why not?

What do you call that part of this residue which is used as an aid in production? What do you call its compensation?

Is a lawyer a producer? A minister? A cook? A factory hand? The employer of a factory hand? A school teacher?

What do you call their respective remunerations?

A farmer has a farm worth $1000, machinery and stock worth $1000, hires a man at $300 per year, works himself, gets $1000 worth of crop. Apportion this into wages, interest, rent, and profits.

A carpenter takes the contract for the carpenter work on a building at $1000, works six months himself and pays his men $800. It cost him $300 to live during the six months. He might have worked by the day, receiving $400 in wages. What is his profit?

Is it possible to have absolute profit and relative loss?

"Every misery that we miss is a new blessing; therefore let us be thankful." (Isaac Walton.) Criticise this doctrine.

CHAPTER V

VALUE

If employees insist upon wages more than equalling the market price of their product, what will the employers probably do?

If wages, together with interest and other outlays, leave no balance for profit, what result is probable?

What motives would induce you to hire laborers at the ruling rates of wages, or to borrow money at the ruling rates of interest?

Is labor valuable in itself? What fact gives it value?

Does this reasoning apply equally to capital and interest? To land and rent? How?

Why do some producers stop producing when prices fall?

What do they do then?

What commonly fixes the price which the country storekeeper pays for eggs?

When one hires laborers, borrows capital, or rents land, on what basis is it decided how much he shall employ of any one of these?

Why raise beef instead of mutton, or wheat instead of flax?

28. When you hire land, employ laborers, and borrow capital for the purpose of raising garden "truck," your payments of rent, wages,

and interest are made or promised in anticipation of the products which you sell. The amounts which you will consent to pay in the total must fall inside the amount which you expect to receive from the sale of your product. What you have left above your outlays is your own pay, or, in technical language, your profit. If by your own estimate you could have done better in some business other than market gardening, you would not have tried this line of production. Thus your products must be expected to cover not only your total expense, but as well an indemnity to yourself for not having done something else.

Relation between selling price and wages, rent, and interest.

There is, then, in all cases of production the question of what men — capitalists, landlords, wage-earners, and employers — are to share in the result, and in what proportion. What fixes how much you shall pay in wages to your laborers in order to get their aid in your undertaking? What determines in what measure the landlord or the tool-owner is to share in the product toward which each has contributed? In a general way of course you pay as much as you must; they make you pay as much as they can. But how much?

What you can at the outside pay depends of course upon what you receive for the product. It is time then to analyze the processes by which market prices and values are fixed.

29. In most lines of production men know, before they produce a thing, pretty nearly what they can sell it for after it is produced. The stores are filled with goods and there is every day a fairly definite price for them. These prices change somewhat, but not ordinarily very widely or very rapidly. We all know in a general way about how much most things are worth. Even with such things as crops, people know months or seasons ahead about what it is reasonable to expect in prices, and each farmer plants according to his "guess." Taking an average of years, wheat or potatoes or hay will be found to command a fairly definite price.

Outlays are made in anticipation of selling price.

This is a surprising fact, when you come to think of it, that everything has its reasonably definite price to-day, and that we can count with reasonable certainty upon the prices of the future. At all events the future is so far to be depended on that men are willing to enter this or that line of business, or to undertake this or that line of

Possible to make rough estimates of selling prices.

production, receiving at the end the prices which rule when the product is ready to be sold. The prices which rule to-day mostly furnish the basis for estimating what the prices will be. One knows approximately what it will cost him to produce a given article. He can tell what he could get for it if it were ready now. He can foresee roughly what he can get for it when, after a few days or months, it shall be ready. All things are produced for prices as they are or as they are expected to be. If it were otherwise — if there were no basis for hope, no place for reasonable expectation — very little would be produced, for almost all production takes time, and most of the expenses have to be incurred before the product is ready for sale. How much one shall pay per day in wages, what he can afford to invest in machines or lands or buildings or raw materials, how high interest it will do to promise, and how much capital it is worth while to borrow, all of these questions must depend on what the product can be sold for when the producer is ready to market it; and it is only by basing his estimates upon the selling price which is to be, that any man will become renter, borrower, investor, or employer.

30. It is evident that people produce things because there is a demand for them — because they will sell — that is, will exchange on desirable terms for other things. One expects to get money for his product and with this money to buy such other products as he needs. Each man produces because he has desires to satisfy, and produces that which will supply the demands of others, expecting thereby to obtain from them the wherewithal to supply his own desires. Desire or demand lies back of all production. The ruling market prices are the expression of the demand as it exists. Thus, if we are to understand the forces which lie behind productive effort, if we are to comprehend the way in which demand causes and directs production, it is again evident that we shall have to understand the way in which prices are fixed; we must study the processes by which market values are determined.

People produce because there is a demand.

SUGGESTIVE QUESTIONS

Is the laborer commonly paid out of the very products he has helped to produce?

Is the payment of wages commonly deferred till the sale of the product, so that the laborer gets a share of the very money for which his product sells?

In what sense is the value of the product the source of wage, rent, and interest payments?

At the end of the week's or month's work has the employer received his equivalent for the wages paid, even though the product is still in the warehouse?

In what sense is the employer a daily purchaser from his employee?

Trace the parallel between the relation of farmer to egg-merchant, and of wage-earner to employer.

Is the farmer paid out of the value of his product? In what sense?

Does any man live out of the value of his product? In what sense? Is this as true of wage-earners as of other persons?

VALUE (*continued*)

Would any system of Political Economy be possible for a man alone on a desert island?

Is there any sense in which Crusoe could be said to buy one thing with another or to exchange things?

Mention Crusoe's probable wants.

Which would be the more pressing?

What would he set himself to obtain first? Secondly? Thirdly?

What would determine him to change from first to second?

What would be the reason for his working?

Why do men in society work?

Do we live to eat or eat to live?

Do we live to work or work to live?

Why does water sell for less than wine? Iron than gold? Wool than silk?

Does a clerk in a candy shop eat much candy? Why?

Why bring wood or hay to town? Is this bringing an act of production? What does it produce?

Is this increase in value intrinsic?

31. It is a commonplace fact that if you are going to sell things at a very high price, you will not sell many of them. While bananas are ten cents each, most people purchase in limited quantities. If I am exceedingly hungry for bananas I may buy one at this price. As the price falls my desires express themselves in larger numerical volumes. While my wants have not in truth enlarged, there have new conditions arisen in which banana appetites of lower intensity come into play, as one may imagine to himself the gradual subsidence of a lake or sea, and the appearance one after another of reefs, and bars, and islands.

Lower prices mean larger sales.

It does not follow, however, that with increasing plenty and falling price I shall enlarge my consumption without limit. No matter how cheap bananas get, there must come a point at which I shall consume no more. Apples sometimes rot upon the ground or in the cellar, because we have more than we want. That is to say, useful things may exist in such abundance as to

But there is a limit — desires are satiable.

have no value; you cannot sell them or even give them away. Water, for example, may be worth nothing — not that any particular amount of water has become less capable of satisfying human needs, but because the supply of water outruns the total need. Some part of the total stock is thus absolutely without utility. This is simply another manner of saying that human desires and needs are not infinite in any particular direction, and this again means simply that needs and desires become less intense with partial satisfaction. One does not ordinarily care as much for a second glass of water as for the first. Were this not true our work could bring us no great good, eating would leave us always hungry, and our wealth would afford us no comfort or content.

The same principle is illustrated in our daily expenditures, and explains how we come to make them as we do. No one applies his entire income to the purchase of food or shelter. Food is the primary necessity, but clothing is more acutely required than is a second dinner. We supply our wants in the order of their intensities. When one has purchased himself a reasonably large wardrobe, the fact that he makes no further purchases of this sort does not

prove that he has no further desire for clothing, but that he has a stronger desire for something else. He follows the line of least sacrifice. So the purchase of apples at ten cents each would mean to you or me the lack of other things which we desire more intensely than we do apples.

So, again, if one is picking and eating wild berries, it is certain that somewhere he must tire. The first berries are well worth climbing ledges for. Finally there comes a berry equally large and juicy which is just worth the bother of picking. The next berry does not get picked at all. Remember for future purposes that the last berry picked and the first berry not picked are technically called marginal berries. They lie on either side the line of choice. The direction of least resistance changes at this point from picking to not picking.

32. In a certain fashion all the phenomena of exchanges are comprised in the above examples. A castaway upon a desert island has no one to trade with, and yet can essentially trade one thing for another, and manifests in his own life a complete cycle of economic activities. So far as Crusoe's work was rationally planned he was

Crusoe could exchange things.

constantly turning his efforts to that undone thing, the doing of which was of leading importance. At a certain point fishing was abandoned for game; more fish were refused in the interests of more game. The game cost fish or the fish bought game, since the work which would produce either fish or game was applied to game and withdrawn from fish.

The English economist, Marshall, excellently illustrates this principle as follows: —

"The primitive housewife, finding that she has a limited number of hanks of yarn from the year's shearing, considers all the domestic wants for clothing, and tries to distribute the yarn between them in such a way as to contribute as much as possible to the family well-being. She will think she has failed if, when it is done, she has reason to regret that she did not apply more to making, say, socks and less to vests. That will mean that she has miscalculated the points at which to suspend the making of socks and vests respectively; that she has gone too far in the case of vests, and not far enough in that of socks, and that, therefore, at the points at which she actually did stop, the utility of yarn turned into socks was greater than that of yarn turned into vests. But if, on the other hand, she hit on the right point to stop at, then she made just so many socks and vests that she got an equal amount of good of the last bundle of yarn that she applied to socks, and the last she applied to vests."

33. If a man has only one bushel of beans to sell he may be able to find some one willing to

pay, if necessary, a very high price for them. If there are one hundred bushels to be sold, the price will probably have to be lower, in order that purchasers may be found for all. Large supplies of product must be marketed at low prices, else some share cannot be marketed at all. In fact, for the entire supply the price will fall as low as the price at which any share must be sold.

To what point does large supply force price?

It is not always easy to see how this works out. At best it can be illustrated only by taking artificially simple and, in some measure, unusual conditions. We have, for example, to assume perfect competition — a condition which rarely exists — and a degree of care and accuracy on the part of purchasers which is not always found. But the general reasonings of the illustration hold, and greatly help to an understanding of demand and supply as they work in the mass in actual markets.

Suppose you have one hundred bushels of beans. One man desires beans sufficiently to be willing to pay a dollar for one bushel. If he were going to buy a second bushel, he would pay, we will say, only 99 cents therefor, 98 for a third bushel, and so on. If you are a sharp trader, you may make him think that

you have only one bushel, and sell him that at $1.00. Then if you can convince him that you have only one bushel more, you may get 99 for this, and so on. But evidently if you offered to sell him three bushels at $1.00 each, he would not take them. That third bushel he cares for only to the extent of 98 cents. If you offered to sell him as many bushels as he wanted at 90 cents a bushel, he would take just eleven bushels [1 (100) 2 (99) 3 (98) 4 (97) 5 (96) 6 (95) 7 (94) 8 (93) 9 (92) 10 (91) 11 (90)]. But he would not pay 95 per bushel for the whole eleven; he would rather go without five of them — unless, indeed, he had to pay 95 per bushel for the whole eleven in order to get any (which, in fact, is often the actual case). If the price is really a per bushel price for as many as he wants, he will buy such a quantity as to leave no bushel costing him more than he cares for it. Make the price 80 cents per bushel, and he will take twenty-one bushels; nor will he pay a higher rate per bushel, *if he has any choice in dividing the quantity* — if he can throw out any.

34. And likewise if one hundred bushels are offered, not to a single purchaser but upon the general market, the price will fall to one cent

each, if, in order to sell all, one bushel must be sold to some one who would rather go without than pay more than one cent for it. True, if there were only one seller, he might try to trade with the purchasers separately, charging one a dollar, another 99 cents, a third 98, etc. Still, if one purchaser knew that others were buying at a lower price, he would know that he himself could obtain the lower price by holding out. There cannot be several prices where buyers and sellers all know, in a general way, what is going on, — where there is what is called by economists a perfect market.

There is a market price.

This is easier to see in the ordinary case of a large number of sellers as well as of buyers, as, for example, where there are a hundred different offerers of beans, each with a bushel for sale, the buyers remaining as before. The prices must be fixed at one cent per bushel, else some one willing to sell as low as one cent will not be able to make a sale, and will be crying his beans about at this price where other people are trying to sell at twice or half-a-dozen times as much. The price would thereby necessarily be brought to his mark.

Undoubtedly in the case of one producer or

one merchant or a combination in control of the entire supply, it might be found profitable to destroy or keep back some part of the supply rather than to accept a price low enough to market it all. Cases of this sort are indeed becoming familiar in connection with trusts, monopolies, and combinations. But where, as is ordinarily the case, there are competing buyers and sellers, it can rarely be of advantage to any one seller to withdraw or destroy his share, or any part of it, in order to hold up the market price for all sellers. The price therefore falls to the level of the weakest, or, as it is called by many economists, the *final* or *marginal* demand.

The market price is the marginal price.

35. We must now allow for differences in the prices which the sellers will consent to take. The whole process of adjustment may be illustrated as follows: Suppose there are offerers of hats disposed to sell, if necessary, at prices ranging at unit intervals from 120 down to 100, what will the price be? One might guess 110. But this must depend on the kind of people who want to buy. If there are full twenty of them willing to pay 120 rather than not purchase, the price may stand at 120 for all. If there are not over

The process of adjustment.

nineteen of this disposition there must be one hat unsold at 120. The price will therefore have to be lower. But with lower prices fewer hat owners will sell. This is merely to say that high prices bring more goods and fewer buyers. Now, if we assume that the buyers' desires range from 110 to 130, where will the price be fixed? It will not do to take averages. If the price were 130 only one man would buy and all hat-owners would be eager to sell. At 125 six men would be disposed to buy and twenty to sell; at 118 two hat-owners would refuse to sell, eighteen still consenting. But at 118 only thirteen men will buy. The price must fall nearly to 115, where fifteen men will sell. Yet sixteen would buy at this figure. At 116, on the other hand, sixteen would sell and only fifteen buy. The price must then be somewhere between 115 and 116, and the number of hats sold fifteen.

36. This case is typical of all market adjustments, except where there are combinations or some other sort of imperfect competition. Notice now that at the point of equilibrium between demand and supply — the price point — there are sellers upon the point of refusing to sell with any fall in price, and

The margins.

other holders on the point of consenting to sell with any rise in price. These men are called the marginal seller and the marginal excluded seller. Likewise there is a buyer on the point of withdrawal if price goes higher, and a possible buyer who will appear if price goes lower — the marginal buyer and the marginal excluded buyer.

It is evident from the above illustration that many sellers receive a price higher than that necessary to induce them to sell; while at the same time many buyers make their purchases at a price lower than that which they would pay if necessary. Thus in a certain sense buyers as well as sellers make profits on the market. These profits or differentials are (by many economic writers) termed respectively buyers' and sellers' quasi-rents. The terms are helpful. Fix them and their meanings thoroughly in mind.

The commodity sold to the marginal buyer or sold by the marginal seller may be called marginal commodities.[1]

[1] While the student is required to make himself thoroughly familiar with this doctrine of margins, and with the differential quantities called quasi-rents, he is at the same time warned that both the doctrines and the terms are of comparatively recent appearance in economics, and are not universally accepted among economists. In the opinion of the author, however, this doctrine of margins is the very heart of economic theory.

37. A few other points require attention. We have treated the hats as sold for money. We might as well have taken the example of cattle sold for wheat, or sheep for cows. But sheep and cows do not divide readily in trading, and these cases would therefore be awkward to handle. But ask yourself why the marginal buyer refuses to pay a higher price. It is not that because of a higher price he would no longer desire the article in question, but that at this price he would rather buy something else; in other words, he would go without something that he wanted more; he would sacrifice more than he obtained. Things are not commonly to be had for nothing in this world. Whatever has what we call market value is to be had only on terms of sacrifice; something has to be given for it, or done for it, in order to get it. Where so much is required as to overweigh in importance the thing to be got, we refuse to make the sacrifice required. Thus we see that in all questions of value things have to be compared with other things. To take one, no matter which, is to refuse another; to enjoy one thing of value is to sacrifice another for it.

Value is an aspect of sacrifice.

38. If useful things were to be had in

unlimited quantities and without effort, they would bear no value. Value comes about only where there is resistance to be overcome, — where there is a disproportion between desires and the means of satisfaction. Value, then, is more nearly the measure of the scarcity of useful things than of their usefulness. It is not the measure of utility, but the measure of the sacrifice involved in obtaining utility. *The value of any particular thing is the measure of its power of commanding the sacrifice of other things.* And note carefully that even for marginal buyers or sellers, where the slightest unfavorable change in price would prevent the trade, value does not stand as the measure of the absolute utility of the commodity in question, but only of the utility of it relatively to the utility of that which it is necessary to forego.

A certain antagonism between value and utility.

It is evident, for example, that the poor man goes without what the rich man purchases, not because the poor man needs the thing less, but because he needs something else more. A pound of meat may be many times more useful to the poor man than to the rich, but to the poor man to have the meat means to lack for bread, while

Value is marginal relative utility, — marginal sacrifice.

the choice for the rich man lies between bread and a cigar or a theatre ticket. So, again, one may forego the bread to-day which he would have purchased a week or a year ago, though no less hungry to-day. The strength of the desire for other things is a necessary element in the decision. The marginal case is, then, a case of marginal *relative* utility — that is, of marginal sacrifice. A given case is marginal simply because the utility gained and the utility sacrificed are equal.

39. When one wants a barrel of flour, it may be possible to obtain it at the store by working a few days for the proprietor, or perhaps by exchanging garden truck or eggs for the flour, or by paying the price of the flour in money. But in this last case that which is really sacrificed for the flour is not the money but the things which the money will buy. Again, it would be possible, that instead of buying the flour one set to work to produce it. In this last case, instead of paying money or truck for the flour the payment is made with labor or effort. All cases of production really trace back finally to exactly this case. If one does not produce the flour directly, he produces the garden truck or

Production is a purchase from nature;

the eggs, or he earns in some way, through labor or service, the wealth or money with which to make the purchase. Thus production may be helpfully and rightly viewed as a purchase of utility from nature at the price of effort.

but is none the less an exchange of things.

But it is none the less true in any case, that each thing of value costs something else, since the labor which produced one thing might have been applied to the production of another. And so we return again to the fact that all value is attended by sacrifice, and that were there no sacrifice there would be no value.

QUESTIONS

Find the market price in the following problems:

Boys desire base balls according to the following scale: 100, 95, 94, 87, 82, 78, 60, 55, 53, 48, 47, 45, 39, 36, 31, 26. With only 6 base balls in the market, what will be the price? With 9? With 12? With 15? Let the above scale represent the falling intensity of one boy's disposition to buy base balls; will this affect the results?

Sellers' minimum prices are as follows: 36, 35, 33, 31, $30\frac{1}{2}$, $29\frac{1}{2}$, 28; buyers' maximum payments as follows: 40, 38, 36, 34, 33, 32. Find price.

Sellers' 19, 18, 17, 14, 12, 7, 6, 5, 4, 3; buyers' 1, 2, 3, 4, 5, 6, 7, 8, 9. Find price.

CHAPTER VI

COST OF PRODUCTION

Suppose yourself to have a pear and a peach; some one tries to take them from you. You can retain one, the peach, by letting the other go. What has the peach cost you?

If one offers you a ride or an evening at the theatre, and you choose the ride, what does the ride cost you?

If your work will produce for you two bushels of corn or one bushel of wheat, and you raise corn, what is the cost of production of the corn per bushel?

If with a dollar you have decided to buy either a book or a pocket knife, and finally buy the book, what does the book cost you?

Why do men work?

When they stop does this indicate that they want no more product?

If you were picking berries to eat, when and why would you stop picking?

If you were given one hundred dollars to spend would you probably buy one thing or several?

Would your purchase of a second or third variety of goods show that you did not care at all for more of the first? Why not limit your purchases to one thing?

40. You have learned in your study of Physics that force always follows the line of least resistance. Water seeking an outlet

breaks through the weakest point in the barrier; the chain gives way at its weakest link; when two opposing tendencies meet the weaker is overbalanced. The line of least resistance includes as well the line of the greatest pull; the stronger attraction prevails. So men in choosing between different pains or discomforts, refuse the greater, submitting to the less; in choosing between pleasures they select the greater, following always the line of least motive resistance. That is to say, the line of human action is the line of least sacrifice. Accurately speaking, one cannot act contrary to his choice. Men always do the thing which they prefer. If the thing done were not the preferred thing, another thing would be done. The choice may be between several evils; in that case the choice of the least is none the less a choice.

All men act on lines of least resistance,

Do not, however, make the mistake of supposing that men always act selfishly. One has only to remember his home and his parents to know that this is not true. Nor, indeed, is it always true in matters of business. The world is full of people who refuse to do wrong for gain, as it is of men who, in business or outside, do kindnesses for the

but not selfishly.

pleasure of doing them. In determining the line of least sacrifice we have to take account of human sympathy and conscience as well as of human frailty. Inside ourselves are the strongest forces of temptation and of restraint. The mother sacrifices health and strength for her child, because the greater pain is in the other course.

41. In buying and selling commodities men likewise exchange the less desirable for the more desirable commodities. When one has money to expend he buys the things he wants most. We commonly say that the hat or the suit of clothes costs this or that number of dollars. This however is not a full or an accurate statement of the case. The money is not valuable merely for keeping. Had you not bought the hat or the clothes you would have bought something else. And now note that the thing, which you desire next to the thing which you actually buy, shows what the thing you buy really costs you.

Which sacrifice measures value?

Thus if you would pay a dollar for a hat you would with still greater readiness pay any smaller sum. Your greatest sacrifice shows most nearly how highly you prize the hat.

If you have the opportunity of going to the

theatre or to a picnic or for a walk, and prefer theatre to picnic and picnic to walk, your love of the theatre is better measured by your picnicking than by your walking inclination — by the most you will sacrifice rather than by the least.

If for a bicycle you would give your gun or your Irish setter or even your pony, your pony best indicates the degree in which you desire a bicycle.

If with your next month's wages you decide to buy either a new coat or a tennis set, not your month's work but the coat measures what the tennis set costs you.

It has been said that greater love hath no man than this, that he should lay down his life for his friend; if so, not the smaller services of kindness, but the very love of life itself measures man's highest devotion to his fellow.

42. In attempting to estimate the cost of production of commodities, we commonly say that such or such a thing cost so many days' work, or so much outlay in wages, rent, and interest. But just as the money paid out in wages, rent, or interest is unimportant, otherwise than for what it would obtain if expended differently, so the labor applied to the produc-

tion of a particular commodity is unimportant otherwise than as bearing upon what it might elsewhere have been made to produce. Labor has no value in and of itself. Wages are really never paid for labor. The value of a saw or plane depends upon the help it may afford to the mechanic. What the field is worth depends upon what it will produce — the cow upon the milk it will give or the meat it will furnish. So the value of labor depends upon what can be got out of it. Nobody wants labor as such. Mere motion, simple activity, is void of value. Only for product and in proportion to product can labor command a price. Ultimately the employer purchases not labor, but the goods which labor produces.

Not rent and interest, but goods, the real cost of production.

Man produces that he may consume; labor is a process of value creation. He labors because this is the condition on which his enjoyment of certain goods depends. Labor is not the cause of the utility — the utility is the cause of the labor. So utility is the cause of value — the scarcity which compels effort being a mere condition. Product is the return upon effort. Labor has value merely in the sense that the value of the product may

Which is first cause, value or labor?

be ascribed to the labor which will produce the product. It is therefore not logical to measure the value of the product by the value of the labor; the labor is measured in value by the product.

43. The value of a thing has been shown to be fixed by the sacrifice which it commands in exchange for other commodities. Cost of production is to be stated in similar terms. As to any particular article, *cost of production is the sacrifice of other possible values producible by the same productive energies.*

Cost of production defined.

Each man seeks for himself that line of production which seems to him to offer the most favorable opportunities. Some men could not, or would not, unless at a very great change in the selling price of their products, change their direction of activity. Others, on the other hand, are near to the margin of change to another line of production. The market price considerably more than remunerates some producers; it barely remunerates others, — that is to say, barely induces them to continue in their present line of production. A producer is often not merely a laborer, or an employer of labor; more often,

Whose cost is equal to market value?

indeed almost of necessity, he is an employer of capital and land as well. If by a fall in market prices the returns become inadequate, many producers tend to drop out of this line of production, and to seek other lines. As the price falls, the producers nearest to changing their employment fall out earliest. These men are called *marginal producers*. If wages fall in any particular employment wage-earners likewise tend to desert this line of employment. On the other hand, when profits or wages in any employment tend to increase, increased production tends to follow. Fewer goods result from a fall in price, more goods from a rise. Thus unusual advantages or unusual disadvantages in production tend to be cancelled by resulting changes in the supply of goods. It thus comes about that the market price of each commodity is on the average high enough to induce a supply which is ordinarily sufficient for the market, and that this average price is the same as the marginal cost (sacrifice) of production. In this sense it is true, and in this sense only, that marginal cost of production fixes market price. The relative strength of the demand for other products fixes the value of any particular commodity, and fixes

as well the amount of it which will be produced. For example, if a given amount of wheat will exchange for a hat, but can be produced with less labor than the hat, wheat production will increase or hat production decrease, till this advantage in selling is cancelled by a fall in the price of wheat relative to hats.

The cause of lower production. It is a relative matter.

To make this clearer let us ask why a given producer withdraws from production when the price falls. From his point of view it is sufficient to say that further production is a matter of no profit or of absolute loss; but the ultimate answer is that his productive powers can be elsewhere employed to better advantage. If, working elsewhere, he can produce products of more value, he changes his occupation, not because cost of production is too high absolutely, but too high relatively. To continue production in the old direction would be to sacrifice a greater value possible in another direction. The difficulty is not that cost of production is too high in the first employment, but that for an equal effort a higher remuneration is obtainable elsewhere.

44. The student should now be prepared to see that from every change of a producer from

one line of employment to another two results follow. The producer makes the change in view of a change in market values, but the change in employment tends to cause a rise in the value of the commodity which he abandons, and a fall in the value of the commodity which he sets himself to produce. In the beginning his change was the result of market conditions; but that which is primarily an effect often becomes in turn a cause, and works to counteract the original cause. This indeed is almost always the case in economic questions.

The results.

The physical sciences excellently illustrate social forces in this respect. Water flowing from one receptacle to another sets its own limit to the process. Freezing brings an end to the solidifying process through a self-manufactured protection against the cold. The brisk fire finally smothers itself in ashes. A spring hard pushed increases its resistance to a new point of equilibrium. Chemical reactions themselves bring about new equations. Likewise in human affairs: wars bring the peace of exhaustion; satisfaction of desire results in satiation; continued labor makes ever shriller the cry for rest.

Interaction of cause and effect.

Market values indicate a shifting point of adjustment between the opposing forces of demand and supply, both, however, taking their origin in the primary fact of demand.

SUGGESTIVE QUESTIONS

What was the utility to Crusoe of a day's labor?

Would the utility have been something else had his island been another island?

Do you think the value of a man's working powers depends upon what it has cost to raise him?

Why don't you study Hebrew? Do you think it altogether useless?

What do you expect to do for a living? Why not something else?

What is the reason that all farmers in your neighborhood do not raise rye exclusively?

Why not produce silk in the United States?

Does the marginal producer's or seller's sacrifice fix price? Or is it the marginal purchaser's sacrifice? Or is it the equation of demand and supply? Which is the primary force?

Why does the nearest excluded buyer not buy? Nearest excluded seller not sell?

Why do some producers stop producing when price falls?

What do they do then?

Why do others continue to produce?

Do producers expect to determine price by their sacrifice?

Would it be well for most of them if they could? Or

do they adapt production to price? How does your answer apply to monopoly producers?

Are wages fixed by demand and supply, or by productiveness of labor, or by both? How may you reconcile affirmative answers?

CHAPTER VII

RENT OF LAND

If you were renting land for farming would you pay more for some lands than you would for others? Why?

How much do you think you could handle advantageously without hiring men?

Why not get along with half as much? One fourth as much? Twice as much? Four times?

From 320 acres do you think two men in diversified farming could get twice as much as one? Four twice as much as two? Eight as four? Sixteen as eight? Where would this stop, if ever?

Would it matter for this purpose whether the crop were strawberries or wheat?

Would the advantages of increase of numbers ever cease in the case of strawberries?

Can two men harvest more hay or wheat than one? Two times as much? Three times as much?

If you were renting land for building would you pay more for one town lot than for another? Why?

45. The producer, estimating as best he may the price which he will be able to obtain for his products, has before him the problem of how to produce most cheaply the products in question. Suppose, for example, that he undertakes the

The market value of the crop is the primary fact.

production of wheat. He will need land, capital, and laborers. But is it best to till much land, or shall he take less land and employ more laborers, or shall he rather increase the amount of machinery and fertilizers used? The selling price of his product fixes the outside limit of his expenditures. Out of this selling price he must get back the interest, rent, and wages, and derive whatever is to remain to him as the remuneration for his superintendence, risk, and effort. He finds the rate of wage payment practically fixed, for example, at $1.50 per day. He will increase his number of men as long as he believes that his product will thereby increase so as to justify the larger outlay. His demand for labor is evidently a demand for the results of labor — for the commodities which it produces. His demand for labor must then find its limit at the point where the wage payments approach equality with the increase in the value of the product due to the laborer. We come, therefore, to the general proposition that wages are at the maximum limited by the value of the laborer's own contribution to the value of the product. We shall later see that, through the opportunity open to laborers of producing upon

their own account, and through the competition of employers seeking profit from the services of employees, the actual wage payment commonly does not fall very far short of this maximum.

Our wheat producer finds also that capital is worth a certain per cent per year; that is, he finds an established rate of interest. How much capital he shall employ must depend upon the amount of it which he can advantageously apply, while retaining for himself a balance of profit over the cost of production.

46. But with wages and interest and market prices as they are or are expected to be, he discovers great differences in the desirability of different lands. One piece but scantily remunerates the application of labor and capital, producing, we will say, ten bushels of wheat to the acre. Under conditions of cost and price as they exist, this land is therefore barely worth changing from pasture to tillage, and is barely worth hiring at a rental sufficient to induce the change. Lands which, with the same expenditure of capital and labor will produce more bushels per acre, command a proportionately high rental — approximately the value of these

Lands differ greatly.

extra bushels. Just as men pay different prices for different qualities of machines, tools, horses, or pianos, they rent or purchase different pieces of land at different rental or purchase prices.

47. So far then there is nothing peculiar or striking in land or rental questions. But if we turn to consider the effect upon rent from increasing population, or from increasing demand for agricultural products, we shall find that some important tendencies become manifest, which are peculiar to questions of land and rent.

Effect of increase in population.

These tendencies are all explained by the fact that the effectiveness of labor in agriculture suffers severely if the supply of land is inadequate. How much land one man may advantageously work depends, of course, upon what crop he is going to raise. But one cannot ordinarily raise as much from five acres as from ten, nor can one ordinarily, by doubling the labor and capital on his ten acres, thereby double the product. Were it possible continually to double product by doubling the expenses of cultivation, there could never come any need of more cultivated land, no matter what increase might take place in the demand for agricultural

product. As it is, however, a larger demand for product is met in part by cultivating more land.

Evidently, if population were sufficiently sparse, only the best land would need to be cultivated, and were land of the best quality unlimited in supply, no rent would have to be paid by any one, since if rent were demanded the cultivator would have his choice of other land equally good. But as population should increase, lands of inferior quality or lands at inconvenient distances would have to be brought under cultivation, and rent would then be paid for the land of better quality. So when third-quality land was brought into use, the second-quality land would command a rental and the first-quality a still higher rental.

48. Note now that this application of labor and capital to poorer and poorer lands must involve a constant tendency toward the lowering of wages and interest, since there is necessitated a constantly decreasing product in proportion to the labor and capital applied. True, there is an increase in product, but there is not an increase proportional to the increase in the number of claims against it. But all the while as

There come a lower social dividend, and higher rents.

poorer lands are brought into cultivation there results a larger volume of rent receipts; that is to say, an increasing share of the product goes to the landlords as payment for the opportunity to cultivate the land.

In view both of the difficulty and of the importance of this principle, further explanation seems desirable. It is clear that wages must somewhat fall, since the total harvest — the dividend — divided by the number of cultivators, gives a lower quotient — a lower per capita of product. But it is also true that this lower aggregate product and lower individual share of the quotient does not measure all the fall. We have seen that to sell one hundred apples the price must go low enough to take the last one, the marginal purchaser marking the price level for all other purchasers. So when men are being hired, no one of them will be paid more than would be lost in product if he did not work. Thus each advance of cultivation to poorer soils lowers wages all along the line. The laborer can receive as wages only what he adds to product. Therefore what is paid for labor in the most unfavorable of the opportunities used, limits the wage payment for

The results are important. The marginal doctrine.

labor of similar quality and effectiveness elsewhere employed.

In a similar manner less and less productive opportunities in the employment of increasing capital tend to reduce the interest paid upon capital used in any employment.

In the case of the apples, it was not the average demand but the marginal demand which explained the price of apples. In the case of land, it is not the productiveness of the best land or of average land, but of the poorest land in cultivation, which gives the rate of payment for the productive energies — labor and capital — applied thereto. Thus the very causes which serve to increase rent work at the same time to lower wages and interest.

49. This tendency of agriculture toward diminishing product relative to increased labor and capital applied, is easy enough to understand, if we think of farming or gardening as any one of us may see it round about him. You cannot double the product of your garden indefinitely by doubling the care and fertilizers. If a farmer has a farm of reasonable size, he will not get ten times the grass or wheat from it by multiplying by ten the number of hired men. This

The law of diminishing returns.

tendency toward lower returns in agriculture is called in Political Economy the law of diminishing returns. By this law is in part to be explained the fact, that in densely populated countries, like China and Japan, wages are low and the standard of living depressed. When average production is small, average consumption — that is to say, the average reward of effort, wages — must be correspondingly small. Where low average productiveness results from insufficient land, it comes about that the better lands bear high rents and command high prices; that is to say, a large share of the product goes to landowners in the form of rent or of interest on landed investments. Bad environment brings small prosperity. The newer countries, like America and Australia, have the advantage in this respect over old and thickly populated lands, like those of Europe. Where the land is adequate, the rents are low.

QUESTIONS

Compare the Chinese and the English in point of (*a*) intelligence, (*b*) strength, (*c*) activity, (*d*) progressiveness, (*e*) scientific knowledge, (*f*) inventiveness, (*g*) freedom, (*h*) hopefulness, (*i*) ambition.

Compare the respective environments in (*a*) climate, (*b*) mineral resources, (*c*) fertility, (*d*) adequate supply of land.

URBAN LANDS

50. Accessibility to market is also a matter of very great importance in fixing the value of land. For example, you might be willing to pay a good sum for the privilege of drawing water from a spring near by your own home, rather than obtain the water gratis from a distant spring. In the case of the second spring your walk is a sort of rent — you pay in effort instead of in money.

Travel or pay money.

The matter of location becomes of overshadowing importance in the case of city rents, where convenience, health, beauty, and social advantages are the leading subjects of interest. As with agricultural lands, so with urban lands there are locations of vanishing value which are nearly marginal and therefore almost non-rent-paying. The better locations command rent in the measure that they are more desirable than the marginal locations. Rent is therefore the measure of the difference in desirability between better lands and marginal lands. The word *differential* is a common and useful term in describing any form of

rent — whether land rent or the different quasi-rents.

SUGGESTIVE QUESTIONS

Assume an island with lands ranging in productive quality from 28 to 20 as shown by the diagram. Consider that with each 100 of population a new tract has to be cultivated and that the diagram covers all the land to which the society has access. What will be the sum total of rent with a population of 900? 1,300? 1,800? 2,300? 2,500? 2,900?

20 20 20 20 20 20
21 21 21 21 21 21
22 22 22 22 22 22
23 24 24 24 25 25
25 26 26 26 26 26
27 27 27 28 28 28

Assume also that the fertile lands are nearer the market, and that each grade of more distant land must pay one bushel as transportation charge to reach the market. How are your foregoing answers modified?

Assume again that it is the poorer lands which are nearest the market, the better lands being subject to transportation charges. Revise your answers to fit this case.

What effect, other things being equal, does population have on aggregate rents?

Suppose the State owned the land, should we pay any rent?

Do we now in any way pay what amounts to a land rent to the State?

What does a perpetual lease without rent amount to?

If you were a tenant, and the landlord remitted your rent, would you have to, or would you, sell your products at lower prices?

Suppose all land rent were released; how would this affect prices?

What effect would the general forgiving of rents have

on the demand for products? On the supply of products? On amount of land cultivated? On prices?

What effect from a percentage tax on rents?

Would it force any land out of cultivation?

If tenants were required to pay more rent what would they do? If consumers were charged higher prices what would they do?

On whom then would the tax fall?

If a large body of fertile land — a new continent for example — were discovered, what effect would it have on rents in Europe?

Rents and land values, rural, have largely fallen in Europe. Why?

What would be the tendency of rents on the new continent?

What effect on supply of products?

On margin of utility of land?

On social dividend? On average comfort?

If the land of the world were all owned by one man or company, could rents be raised profitably for the owner?

Is there any reason why landowners cannot combine?

Would some land be thrown out of use? Why?

Who would lose the rent on this?

If a large amount of land were taken from agriculture for parks, etc., what effect would this have on the aggregate of rents? On prices of products?

Is it the increase of rent or the decrease of supply which causes prices to advance?

What will the tenants do if prices fall?

Will all tenants do this?

Which ones?

If you were a farmer with a large farm, would you hire men to work for you? Why? How many?

When and where would you stop?

Could you fix prices of products? Wages of employees? Rents?

What bearing has productivity of marginal land on agricultural wages?

What bearing have wages in other employments on agricultural wages?

An increased demand for agricultural produce exercises what effect on the margin of utility of land? On rents? On prices? On agricultural wages? On wages generally?

Is the wages question the solution of the fraction *social dividend* over *social divisor?*

Interpret the following:

$$\text{wages} = \frac{\text{social dividend} - \text{rent} - \text{interest}}{\text{wage-earners}}.$$

What would you do with taxes in this formula?

What makes a town lot valuable?

Who made it valuable?

Who gets the advantage?

What do you mean by the unearned increment?

In what sense are the interests of landowners opposed to the interests of all other classes of society?

Read in the encyclopedia articles on Malthus and Malthusianism.

Prove that rent does not commonly add to price.

In justice ought the tenant to pay rent upon the improvements which he himself has made upon the land?

How may he be compelled under free competition (rack rent) to do this.

What effect on the condition of farmers?

What effects upon the habits of husbandry?

What relation do you perceive to the history of Ireland?

What effect on rents from improved machinery?

What effect on rents from improved methods and science in cultivation?

What effect on rents from improved transportation?

What effect on social dividend from improved machinery?

What effect on social dividend from improved methods and science?

What effect on social dividend from improved transportation?

RENT AND PRICES

When and why is there an increase in the amount of cultivated land? An abandonment?

When prices rise for products is this a cause of higher rent or a result?

If increased quantities of cloth are made and marketed will the price per yard rise or fall? Why?

What effect from higher prices on amount produced? Will these higher prices last?

What effect from higher prices on agricultural products? Will these higher prices last?

Is the supply of land equally as flexible as that of cloth?

On what terms in point of cost can agricultural products be increased.

When will poor land find occupiers? Why?

What effect on the rental value of better land?

51. We now approach a more difficult problem. Evidently as poorer lands have to be cultivated the prices of agricultural products will tend to rise. Shall we say that the rise in prices results from the cultivation of the

poorer land, or that cultivation results from the rise in prices?

The student will do well to stop here and think this out for himself.

Clearly enough the necessity of cultivating poorer lands explains the rise in prices. But no individual cultivator would enter upon this poorer land otherwise than as induced so to do by the higher prices. Producers accept the offer held out to them by market values. Increasing demand for agricultural products is the primary force which makes these higher market prices possible. Increasing resistance from nature, that is to say, a higher necessary sacrifice in production, is the fact which, added to the demand, makes these higher prices necessary. When you push hard upon a spring, the resistance of the spring is the result and the counterpart of the force with which you press it. When snow packs hard before the plough of the locomotive, it is in reality the snow which is getting packed by the force directed against it. In all cases where action and reaction meet in equilibrium, it is the action and not the reaction which is the primary force. And so with the cultivation of poorer land and the attendant

Do rents cause prices, or prices rents?

rise in prices. Increasing difficulty is the occasion of the rise in prices — the condition — while increasing demand is the cause. Thus we again face the fact that utility alone — demand — does not explain value. Value is the measure of the resistance — the sacrifice attendant upon obtaining the utility and satisfying the demand. Value increases as goods move farther and farther from the condition of pure bounties of nature.

52. The land which is just upon the point of not being cultivated if prices fall, or which would not be cultivated if a rent higher than the value of the land for pasture or forestry were imposed, is called land at the *margin of cultivation*. Cost of production on this marginal land and the market value of the product are equal. The cultivation of this land is a result of market value, and cost and value on this land are commensurate, just as, in the bean or hat illustration, price was the outcome of demand, and the marginal demand was found to be the equivalent of price.

Margin of cultivation results from price, and explains rent.

We say truly that value is always the resultant of demand and supply, the point at which they are in equilibrium, — but it is still

to be remembered that supply comes about as the result of demand. Price is high because resistance is high. Where resistance would be greater than the price, production will not take place.

53. Now note that grain produced on land better than the marginal land could be produced profitably if prices were lower. A surplus remains after the outlays of production are covered. Who gets the benefit of this surplus? It is due to the superior quality of the land. If the cultivator is a renter, he must turn it over to the landlord. Otherwise the landlord will rent to some one else. At any rental payment less than this advantage, cultivators of marginal land would be eager for this better land. This surplus in the market value of the product of the better land over the outlays of labor and capital in its production, is the fund from which rent is paid. Rent, therefore, like wages or interest, is drawn from the selling price of the product.

On better land cost is less than price, therefore rent is paid.

It thus appears that rents are the result of market prices and not the cause of them. The rents paid in excess of marginal rent clearly cannot affect market prices. They are merely

a question between landlord and tenant as to how much each shall get out of the market value of the product. As long as poor land must be cultivated to supply the demand, so long prices must be high enough to compensate the production on this poor land. To cancel the rent on the better land would affect neither the market supply of products nor the demand; it would merely transfer to the tenant the advantages which must attach to superior land. Increasing demand pushes cultivation upon poor soil, where the resistance to production is greater. Rent, therefore, is the outcome of increasing resistance to production. Were there no necessity for cultivating poorer land, that is to say, were there no increase in resistance, there could be no increase in rent. But this is not to say that low rents bring low prices and high rents high prices, but merely that the conditions of demand and supply which bring low prices bring low rents, and that conditions which bring high prices bring high rents.

Rents do not affect prices.

CHAPTER VIII

INTEREST

What different motives might one have for laying aside money?

Do people commonly get interest on money deposited in national banks?

Would you ever pay for having your travelling bag guarded? Why?

Why not pay the banker for keeping your money?

If charges for keeping money were common would any saving still take place?

What different motives might one have for borrowing money?

If for use in farming what would determine the rate which one could pay?

Could a starving man afford to borrow at 100 per cent per annum?

Is bread always of the same utility to the consumer?

Does the borrower get an advantage from borrowing? How?

The lender from lending? How?

What effect upon the social dividend from fertilizers?

What effect from improved methods of transportation? From opening up of new supplies of land?

What effect from better farm machinery? Better skill in working land?

What effect from more effective machinery in the factory?

Does the laborer work for his own benefit or for someone's else?

Who consumes his wages?

How is it with machines?

Is machinery humanity's assistant or its competitor?

Does machinery sometimes turn laborers out of employment? How?

Who make the machines?

What effect from machinery upon the purchasing power of other men's wages?

Would wages be higher if we had to use gas for light instead of sunshine?

If products can be produced at small effort will laborers be well or ill rewarded in products?

Is machinery the laborer's assistant or his competitor?

54. If one has to-day a great appetite and no dinner, and will later have at his disposal two dinners with no increase of appetite, borrowing must be greatly to his advantage, and if necessary he may pay enormous interest rates without exhausting this advantage. Neither money nor wealth is of stable utility to men, but varies in utility relatively to their needs. So the young man rationally borrows the money to complete his education, counting upon paying at a more convenient time. So a business man, in straits for means to save his credit from injury or his property

Advantages of borrowing.

from forced sale, pays with advantage for the right to await a better market or for time to muster his resources.

These cases are typical of the rational demand for loan funds. The demand for capital to be used in aid of production is also a familiar matter. There is, as well, an improvident demand — the spendthrift near-sightedness which burdens a needy future in favor of a luxurious and wasteful present.

55. But for the most part the demand for loans rests upon the fact that production can be increased through the help of capital.

A farmer, for example, finds that with the expenditure of $1000 in ditching, he can increase by $200 the annual productiveness of his meadow. If necessary, then, he can afford to pay nearly 20% for borrowed money with which to effect this improvement. If the market rate of interest is 6%, he can profitably borrow more than this $1000. Suppose the gain in productiveness from added supplies of capital to be as follows: —

Second $1,000 . .	$150	Fifth $1,000 . .	$70
Third 1,000 . .	120	Sixth 1,000 . .	60
Fourth 1,000 . .	90	Seventh 1,000 . .	50

With the rate of interest at 6% he can afford

to borrow at least $4000 additional. To borrow yet a full $1000 more would profit him only as much as the necessary interest payment. He will therefore borrow say $750, at an increase in productiveness of say $50. The account then stands as follows: —

$1,000	at	$60	interest and	$200	advantage.
1,000	at	60	interest and	150	advantage.
1,000	at	60	interest and	120	advantage.
1,000	at	60	interest and	90	advantage.
1,000	at	60	interest and	70	advantage.
750	at	45	interest and	50	advantage.
5,750		345		680	

Note that his demand for capital at an established rate finds its limit at the point where usefulness falls to a level with interest payment. Were some more effective method of ditching discovered, it would be advantageous to increase his borrowings.

Note also, that the limit of his demand is not at all affected by the amount which his preceding borrowings have already profited him. Each addition of capital stands on its own merits as a separate question.

The manufacturer, likewise, may find it of great profit to increase the volume of his busi-

ness, or to improve his processes of production. He also stops at the point of disappearing advantage in view of the rates of interest which he is compelled to pay.

56. It is evident in all these cases that something is borrowed on terms of a larger repayment later. That is what interest means.[1] This increased payment indicates merely that for one reason or another men prefer to have a thing now rather than a year from now. We can make use of it during the year. The earlier we get it and the longer we have it, the more benefit we obtain from it. This is really why a note payable in the future is subject to a discount. The future dollar, or machine, or farm sells at a disadvantage as against the present. If we had the thing now we could be using it — adding to it — making it a percentage larger at the end of the term. So putting it the other way, we say that the present thing is at a premium over the future thing.

The value of time with capital.

57. Some part of the explanation of interest is doubtless to be found in human shortsight-

[1] Keep in mind that we are discussing pure interest, net interest, and not this or that rate imposed or paid as a kind of insurance charge against risk of loss of the principal. See note to Section 26.

edness and stupidity. Just as the object which is near by appears to the eye larger than the distant object, so in the mind's eye the pleasure, or pain, or burden of a year hence fails to impress us at its real importance. We consume or waste to-day, not realizing the want in the future, or the burden of payment or of replacement. At the year's end, likewise, the pleasure of to-day will look insignificant, when placed by the side of the needs and burdens of that time. Clear-headed and far-sighted men do not make this mistake to the same extent as the stupid people and the spendthrift; but almost all of us make it in some measure; most of us are prone to get into unnecessary debt. It is characteristic of savages to make small provision for the future or no provision at all.

Irrational interest.

58. What then shall we take as a definition of interest? Is it a payment for the use of money, or, as it is sometimes expressed, a rent on money? Not accurately, since what we commonly borrow is really the things which money will exchange for. This notion of interest as payment for the use of money, is what is in the minds of those people who believe that interest is

Is interest a rent on money?

morally wrong. Can ducats breed? Keep your gold pieces never so long, will they multiply? If they will not increase in your hands, why receive an increase from the hands of the debtor who has borrowed them? True enough —but the sheep, which the money buys, breed; cows pay interest in the guise of milk and butter, and the farmer cuts coupons of grass and grain from his fields, with which to redeem the interest coupons on his mortgage note.

Why not then say that interest is payment for the use of capital? But as we have seen, not all wealth is capital. Only that share is termed capital which is used as an aid in the further production of wealth. Interest, however, is paid on any sort of wealth. As the famous Frenchman Turgot wrote: "Men borrow with all sorts of views and from all sorts of motives. This one borrows to embark upon an enterprise which shall make his fortune; that to buy a tract of land; another to pay a gambling debt; still another to cover a loss of revenue due to accident; yet another to live until he may earn something by his labor. But all of these motives that influence the borrower are altogether indifferent to the lender. This latter

Is it paid for the use of capital;

is concerned but with two things, the interest which he shall receive and the safety of his capital. He takes no more thought of the use to which the borrower will put it than does the merchant of the use which a buyer will make of the food supplies which he buys."

Interest is often defined as payment for the use of wealth. For most purposes this is all that could be wished. But it does not apply quite accurately where goods are borrowed and are consumed instead of being used and returned. If we speak in this case of payment for the use of wealth, we must have in mind a use which the borrower might have made, but did not make.

or for the use of wealth?

59. We therefore adopt as our final statement a definition which, in the absence of all this explanation and illustration, probably would not mean much: *Interest is a difference in value in favor of present over future goods.* This difference results in part from the habit of underestimating the needs of the future and of burdening the future in aid of the present; in part from the fact that with the help of capital an increase in product is possible. That is to say, the demand for present goods on terms of a larger

The accurate definition.

payment in the future, is due in part to the helpfulness of wealth in productive processes, —in part to a desire for wealth for purposes which are non-productive. This demand for unproductive uses depends in part upon the call for money to pay existing debts, in part upon the disposition of men to discount the future, in part, also, upon the fact that in some cases a larger service is afforded by immediate consumption of a given sum of values than will be sacrificed by the later payment of a greater sum.

60. To say that the rate of interest is six per cent per annum really means that 100 of wealth can be sold to-day against 106 at a year from to-day; men pay a premium for the present thing. At what rate of premium present goods can be sold against future goods, is a question of adjustment between demand and supply. The process of adjustment is exactly like the cases, already analyzed, of selling hats or apples. The rate of premium must be low enough so that supply and demand may be in equilibrium. The helpfulness of wealth as an aid in production occasions the larger share of the borrowing demand. When the opportunities for employing capital are limited, or the

How is the interest rate fixed?

increase in product from the use of capital is small, the rate of interest must be low.

The rate of interest is, then, commensurate with the marginal desirability of wealth — speaking roughly, with the marginal productivity of capital. All borrowers, however, expect to make something more, and many of them very much more, from the use of capital than they pay as interest. Many of them in fact do obtain this surplus, that is to say, interest payments to lenders fall a long way inside the usefulness of capital. If lender and borrower, then, are benefited by the existence of capital and the loaning of it, it is left to inquire whether any one is injured.

61. We have seen that with wages and interest to be paid, the producer of commodities has the question before him whether to hire more men or to employ more capital. Shall he purchase labor-saving machinery? Or shall he do his work by hand labor? The factory owner is constantly replacing employees by machinery. Type-setting machines are displacing the printers. Air-brakes take the place of brakemen. In a certain sense, then, capital is the competitor of the laborer; which will do the work the

Are capital and laborers competitors?

cheaper decides which shall get the job. Yet somehow we feel certain that labor-saving appliances make for the general well-being, that the riots of English and French workmen against the spinning-jenny and the power-loom were ignorant mistakes. In truth, the hostility of wage-earners toward inventions is an error which is fast fading from the world. All these new processes and inventions are methods of increasing the social dividend. They are savers and multipliers of human energies in production.

62. But suppose the wage-earner to answer, "This may be true, but we don't get the increase. It is caused by capital; it goes to the owner of the capital; and we are driven from our places to starve while the machines do the work." Is this a fallacy? And how shall we prove it a fallacy?

A full demonstration of it must await the discussion of Profits and Wages in the next chapter. But it is well in this connection to recall again the origin of capital. It is merely stored-up labor. Labor is employed in creating it, and it continually wears itself out and must be replaced by labor. This is illustrated in the constant wear and tear of machinery, in the consumption of coal, and

The question rightly placed.

in the repair of factories, buildings, cars, and ships. And not only does it require wage-earners to make and repair the machinery, but to oversee and operate it. Capital is a round-about application of labor to production. It would be odd if in the resulting increase of product the stored-up labor should get all or most of the advantage. Nor does it so in fact, though we have as yet seen no reason to assert that the laborer gets the advantage. It must, however, be true that as capital increases, interest, which measures the marginal desirability of capital, must fall; the borrower obtains the services of capital more cheaply. The advantage must then fall to either the laborer or his employer. The case is, therefore, not one of laborer against lender, but rather of laborer against employer, — against the user rather than against the owner. Are the benefits of increased capital really somehow intercepted by the employer or by some one else, so that they fall short of reaching the wage-earner?

Doubtless it often happens that by falling prices the market is so much widened that the number of wage-earners is really increased, without reference to those employed in making machines. This is ordinarily the case when a

small fall in prices brings about a more than proportionate increase in consumption, as, for example, in the case of books; but this is as clearly often not true, as, for example, where agricultural machinery displaces hand labor; no great increase in food products can be marketed. Evidently, if machines did not economize labor they would not be used. An increase of product must result from a given sum of expenditure. But whether machines in any particular industry do or do not take the place of labor, it will be made clear in the next chapter that the wage-earner, in the outcome, gets most of the benefits from the economy of effort made possible through machinery.

Machines sometimes displace men.

SUGGESTIVE QUESTIONS

In what case does a physician treat his horses as capital? In what case as mere consumption goods?

Would an increased supply of money affect the crop from any piece of land? The butter from any cow? The ratio between the yearly output — dividend — and the market value of any property?

Assuming that doubling the currency would double the price of cows, sheep, and farms, would it do the same thing for calves, lambs, and harvests?

What effect, then, on interest rates?

In what sense is interest a ratio?

What forces determine this ratio? Which is ultimate?

CHAPTER IX

WAGES AND DISTRIBUTION

Are machines productive? In what sense?

Are they productive alone? What must go with them?

How were they produced?

Is there any relation between high standards of living and high efficiency?

Does our higher standard of living make our wages higher than European wages?

What does make our wages higher?

Has the fertility of our soil anything to do with it?

What limits the employer's disposition (ability) to pay wages?

Can the farmer increase the crop by being hungry? If so, in what sense?

Can he increase his ability to pay wages by the fact that his hired man has a large family?

Can the hired man use this fact to increase his wages?

Do wages equal wants or wants wages? Which is the nearer the truth?

Are women's wages lower than men's because they can afford to work for less?

Why does not the employer have to pay them more? Why may he not pay them still less?

Do employers make more by hiring women than men?

If the population of the world should double, what

effect on the aggregate production of commodities? Would the per capita production maintain itself? Why? Discuss the effect (1) on agricultural production, (2) on other production.

63. It cannot be too firmly held in mind that in any investigation of economic facts we are studying mankind in its relations to its environment. Man is the actor and the central fact. Neither land nor capital serves for productive purposes, except as subordinate to man and directed by him. Neither is productively independent. The economic point of view conceives of man as the actor, and of all other things as raw material at his hands. All production takes place for his benefit, in response to his demand, and goes to his benefit. Rent is not paid to land, but to landowners, interest not to capital, but to capital owners. The national dividend is distributed among the members of the producing society for consumption by them, and not by land, or machines, or wealth. True, the advantages do, in some measure, go to particular members of society by virtue of their possession of land or capital, but it is none the less true that consumption depends upon production, and that average

Wages and production questions of correspondence.

consumption is the equivalent and outcome of average production.

Wages a question of product, and not of standards of living.

64. The question of wages is too often treated as if what the wage-earners receive were fixed by what they need to live upon, instead of by what they are able to produce. It is constantly asserted that wages are governed by the standard of living. That people live well is put forward as a reason that they are well paid — as explanation for the fact that they are able to live well. But in truth high living has little to do with the case, otherwise than as wholesome, healthful, contented living, with good food and in healthful surroundings, may aid in bringing about a high productive efficiency. But the only way for society to consume more, to establish a high average of comfort, is to produce more.

None the less a question of demand and supply.

65. The question of wages is confused, as are many other economic questions, by a misunderstanding of the meaning of *demand* and *supply*. To say that the value of any commodity is fixed by the equation of demand and supply is a correct and a safe enough proposition. But to suppose that the more laborers there are, the

lower wages will be, or that the fewer hours or the more lazily they work, the higher wages will be, is grossly to pervert the meaning of the demand and supply doctrine. The demand for labor, and the wages at which this demand will employ the labor, depend upon the value of the product which the laborers will bring to the employer. If a farm hand adds to the crop by only one bushel of wheat a day, it is certain that his wages will not stand at two bushels of wheat per day, or at an amount of money which will buy the two bushels. If operatives in a factory make each but one pair of shoes a day, they are safe from ever getting two pairs each for doing it. So if the population of any one city or of the world should double, wages would not fall by a half, or at all, unless the average productiveness of labor fell as a result of the overcrowding and of the attendant disadvantages of opportunity.

66. But something remains to be said in explanation of the wages of particular laborers or of particular classes of laborers. It is not to be inferred that the employer always pays all he can. He employs men for the profit he gets out of it.

Wages in particular industries,

He will not pay more than the value to him of the labor or its product. How near he comes to a full payment will depend upon what the competition of his own or of other industries compels him to pay. The practical working of this competition will shortly come up for further discussion.

Also it must be held in mind that precisely because wages depend on product, wages must be low if so many people work at one thing as to compel a low selling price in order to sell the entire product. We shall later see that this largely explains the low wages of women.

and in different countries.

Again, it is found that the same sort of work is well paid in one country and ill paid in another. How explain, for example, the high wages of domestic servants in America, and the relatively low wages in Europe? Do not the European servants do equally good work? Are not the results as valuable to the employer? Or is it true that Americans desire this sort of services more strongly than do Europeans? The difference is really in the demand. It is doubtless true in a sense that the low wages are a result of the large supply of laborers in this particular industry. But how great

this supply is depends on what wages other industries offer, and how many laborers they will take. That is to say the demand — the competition — that bears upon wages in any given industry or employment, is in largest part the demand or competition of other industries and employments. If domestic servants in Europe earn less in other employments than they can earn in these other employments in America, it will be possible to hire them as servants in Europe at lower wages than they can obtain as servants in America. Their producing powers as servants may be equally high there, but their producing powers in general are much lower there than in America. They will therefore have to work there as servants at a lower *marginal* utility. In America we have to pay high if we get them to work as servants. In Europe the employers might most of them be willing to pay equally high wages if they had to; but they do not have to The proposition therefore stands, that production fixes wages; but we must look at the entire range of productive employment.

67. It should now be clear and it is fundamental that the first concern of society in the problem of distribution is to have the largest

possible product to divide. While we may find reason in later discussions to question how far human well-being is bound up with the maximum command of wealth, the question of distribution is evidently, for the various participants, a question of how to obtain the largest share in the distribution. Behind distribution is production.

Conflicts of interest in production.

For each of the factors in production there are but two possible methods of increasing its distributive share — (1) by increase in the total social output; (2) by increase in one share at the expense of one or all of the others.

Primarily the interests of all producers run parallel in the attempt to attain the highest possible social dividend. But in the distributive process it is equally clear that the interests are adverse. When, for example, two boys go fishing or hunting on shares, harmony is probable until the time comes for dividing the spoils; then peace is less certain. So partners in business are each as loyal to the partnership interests as either would be were the enterprise all his own; against the business world they stand united. But in the division of the profit and in the settlement of the partnership accounts they are not one, but two.

Thus we must beware of the sweeping proposition that the interests of all classes of producers are parallel, or that the interests of capital (capitalists) and labor (laborers), or of employers and employees, are one. They are never so in distribution, and are not always strictly so in production. This fact is strikingly illustrated in trusts, monopolies, and combinations. It is to the interest of each that others should produce as much as possible; but it is often to the interest of one producer that his own product be materially limited, and the price thereby increased. A small product may have a greater market value than a large. It is better to receive 50% of 75 than 30% of 100. At all events, the saving through smaller expense in wages and raw material generally outweighs any decrease in the value of the entire product.

But excepting cases of this sort all producers are concerned in bringing about the largest possible production.

68. If there were no employers and each man worked for himself, it is evident enough that more and better tools and machinery, and more effective productive processes and falling rates of interest on the use of capital would vastly benefit the

That machinery question.

producers. It would be for each producer like a multiplication of his productive powers.

But is the same thing true in the system of great employers and monster factories? This is the question left over from the last chapter for discussion. We saw that the benefits of advancing civilization in better processes, larger capital, and improved machinery do not remain with the owners of wealth and capital; but do they remain with the employers — the managers of the capitalized wealth?

Evidently not entirely — for it is open to the laborer to work for himself if he prefer.[1] Many of them do this, and gradually themselves become employers of labor. Other laborers, again, find it more to their advantage to work

[1] As a practical fact, of course, insufficiency of capital, even for the simpler hand industries, makes an important limitation to this statement. It is true also that the mechanic, trained to one small part of an industrial process, is ill prepared to undertake the complete process on his own behalf. But it is none the less true that if the position of wage-earner were not, on the whole, more desirable than that of independent producer, men could and would, as they once did, accept the methods and compensations of the independent system. The condition of employee is imposed upon no one, otherwise than as it is self-imposed by those who have judged it to be the more advantageous opening; and in large measure the decision is revocable, if any one cared to revoke it. That laborers would so rarely consider to return to the old method, no matter how readily open, is merely another aspect of the fact that the modern system is not purely for the benefit of some one else than the laborer.

for an employer. Each follows his line of greatest advantage or of least sacrifice.

The employer-class exist because of their ability, by reason of the possession in peculiar degree of capital loaned or hired, or by reason of superior ability in management, or by reason of economies in production possible only in industries conducted on a large scale, to procure from labor larger utilities and to provide for it a larger recompense, risks being considered, than laborers could obtain from society without the intervention of the employer.

The demand of the employer is an intermediate form of the demand of consumers for the goods produced. The employer may be regarded as the agent or representative of the social demand engaged in the purchase of the productive power of labor, and compelled by competition, if effective, to recompense laborers approximately in the proportion in which their services have contributed to the selling price of the product. No distinction in principle exists for present purposes between the goods commonly termed services and those goods fixed and embodied in matter commonly termed commodities.

Employer as a middleman is subject to competition.

69. Before we proceed to theoretical analysis, let us see how things go on in actual business.

One shoe manufacturer, A, has exceptional ability of management; he shows, we will say, unusual skill in directing men so as to get the most work out of them, or so as to make their work the most effective, — or he has exceptional skill in judging to whom to give credit, or in advertising, or in buying supplies, or in obtaining the top price for his goods. Evidently he can employ his men as cheaply as another employer, and sells his product on the same general market. He is making large profits, but not at the expense of wages or by higher prices to consumers.

The supply of employers.

B, a competitor of less skill, finds it necessary to pay the same rate of wages and to sell on the same general level of prices. His inferior ability shows itself in lower profits. Still a third employer, C, has small skill in management; he would almost better keep out of the race, — could make nearly as much by working for A or B. C is a marginal manufacturer. His outlays in wages and other expenses hold his profits down to nearly or quite to the wages mark; if things get much closer with him, he will go out of business. Now suppose that A

decides to enlarge his trade by putting prices down a little, or that X, a wage-earner in hat-making, concludes to try his fortune at manufacturing. It is time for C to drop out. If Y and Z enter the field, A and B will meet an increase of competition which may further force down prices and profits. Possibly B will become marginal and be the next to give up the struggle. A's profits suffer, but do not entirely disappear; prices, however, are falling for consumers.

It is of no use for the employers to try to hold up their profits by lowering wages. Even if they combine, the success can be only temporary; other industries will get the laborers, if those employers fix their wages below the market level. The only resource in the long run for getting exceptional profits is to form some sort of pool, or trust, or combination, and by limiting the product to push up the prices. We are now ready for the theory.

Relatively to society, employers stand as a class of wage-earners whose remuneration, other things being equal, is competitively determined by the supply of them. As with other forms of wages or profits, so with employers' profits; peculiar advantages in ability or capital will

bring correspondingly large returns, the amount of the profit being mostly determined by the degree in which the employer is able to reduce his expenses of production below those of the marginal producer, whose profits are practically of equal importance with the wages he could earn in working as wage-earner. A tendency toward a fall in the profits peculiar to ability, analogous to the tendency toward a fall in rents, exists as the differential advantages of ability become, by increase in intelligence and education, less marked.

70. The line which separates the independent workman from the employer on the one hand and the wage-earner on the other is easily crossed. Wage-earners are continually changing to self-employment, as are the self-employed to wage-earners or to employers. There are marginal wage-earners and marginal independent workmen — men who are upon the point of changing to employers. There are employers whom any fall in profits will push into wage-earning or independent production, — marginal employers. It is then evident that the profits of employers are never safe from competition from the outside, and that wages and profits, being in truth but different as-

pects of reward for human activity, have a normal and natural relation to each other. The profits of the marginal employer are not greatly larger than the wages of employees. Employers of greater skill make proportionately greater profits. They produce and sell upon the same market conditions as does the marginal producer, but are able to reduce their outlay of production below his outlays. In the competition of different employers with each other, the market price is the measure of the sacrifice of the marginal producer. The larger profits of other producers can, therefore, from no point of view be regarded as forming an addition to price. The marginal employer is driven from business by the ability of his competitors to achieve economies in production to which he cannot attain ; prices go too low for him.

This competition of employers with each other is sharp and effective. They bid against each other for the services of capital as well as of labor. As more capital is offered and rates of interest fall, these competing producers find it possible to produce and sell at lower prices; thereby by competition they cancel for each other the advantages of these lower rates of interest

The competition of employers.

upon capital. That is to say, *the benefits of lower interest rates are passed along to consumers under the form of lower prices.*

71. It follows, then, that the increased social product due to the larger use of capital in the form of machines and labor-saving devices, is not intercepted by capitalists under the form of interest or by employers under the form of profits, but goes for the benefit of humanity as a whole, and is distributed among individuals or classes in proportion to their consumption. In their character of consumers, wage-earners get their share through the increasing purchasing power of their wages. As we have already seen, it is the competition of employers to obtain the services of laborers, which guarantees to the laborers a compensation proportionate to the services rendered.

SUGGESTIVE QUESTIONS

Who are ultimately benefited by lower rates of interest following upon larger supplies of capital?

By lower rents?

By lower profits?

Do lower profits come about chiefly through payment of higher wages or through fall in prices?

How does the marginal law apply to employers?

Do wages and profits tend to preserve any general relation to each other? (See Section 27.)

Does the laborer get wages in proportion at all to the profits of his employer?

Ought he?

The wage-paying ability of what employer is commensurate with market wages?

Is this fair to the wage-earner?

Can it be changed by trades-unionism?

Or in any other way?

CHAPTER X

POPULATION; INCREASING AND DIMINISHING RETURNS

Look up Malthus in the Encyclopædia.

What bearing has density of population on rent?

On wages?

Explain the law of the survival of the fittest as it applies to the lower orders of life.

Does it apply in equal degree to humanity in the complex conditions of modern life?

Do we let it apply?

Have lower orders of life any standard of comfort similar to that among men?

Do their standards change?

Do ours?

72. During the earlier years of this century the English Poor Laws were the subject of much discussion and criticism. The provisions under which help could be procured by the poor were extremely lax. As a practical fact all men so lacking in energy as to refuse to work, and so lacking in pride as to accept charity, found help waiting for them through special taxes levied for this

The Poor Law agitation.

purpose and called the poor rates. These taxes were assessed upon the cultivators of land. In some cases the poor rates became so great a burden as to bring about the abandonment of cultivation. In any case the ability of the cultivators to pay wages was seriously affected. The resulting lower wages made a still greater call for help from the rates. Industry and energy were discouraged, and a premium placed at their expense upon idleness and improvidence. But the full effect of these injudicious laws did not stop with this. Aid was given to pauper families in proportion to the size of the family. To the pauper this meant that the more children he had the more help he could get. As it became more difficult for the industrious man to support his family, it became more easy for the shiftless. A direct incentive was given for the multiplication of the shiftless. English agriculture was made to suffer in order that English manhood might be degraded.

73. Most effective among the protests against this system was the celebrated *Essay upon the Principle of Population*, written by the Rev. Thomas R. Malthus, a clergyman in the English Church, who held, for a large part of his

life, a professorship in Political Economy and History in an educational institution belonging to the East India Company at Haileybury, England.

Malthus went much further than merely to condemn the artificial stimulus to improvident child-bearing. He elaborated two general propositions of great importance. The first was in substance what we have already stated as the law of diminishing returns in agriculture — the assertion that with increasing demand for food products there is a marked increase in the difficulty of procuring them. Over-population is therefore linked with poverty. His second proposition was that the tendency of the human race is strongly toward over-population, and that nothing but conscious and continuous resistance can overcome this tendency.

74. Setting aside all investigation of what tendencies are likely to develop with regard to population, we are none the less concerned to determine what effect will come from an increase of population, should such increase take place. The agricultural law of diminishing returns is of especial importance in this regard, by virtue of its bearing upon the productive power of human labor. First we

Production and population.

must observe that over-sparseness of population is unfavorable either to the production of wealth or to the development of civilization. Pushed by increasing numbers men swarm from the parent hive somewhat as do bees. Migrations to new continents, the development of the variety of natural resources which different regions present, the growth of international trade, the exchange of the different products of art and science and industry, and the accompanying interchange of science, thought, literature, and institutions, make powerfully for the material and intellectual progress of the race. Hunting or pastoral or purely agricultural types of society are rarely progressive. Even upon the farm, and still more noticeably in the shop, the advantages of associated effort are apparent. One man to pitch up the hay and another to make the load are of mutual advantage. New colonies often suffer acutely from lack of numbers.

75. But just as on the farm there comes a point at which an increase in the number of laborers takes place only at a lower *per capita* productiveness, so in a state or continent there may come about a condition of over-population. The very fact that

Diminishing returns.

nations swarm is a proof of this. After a certain point is reached, the tendency of overpopulation is toward a reduced productiveness of labor, and therefore toward lower wages for the laborers. This is the old law of diminishing returns.

Proceeding in substance upon this law as a basis it was urged by Malthus, and is still urged by many economists, that the world is unavoidably set toward poverty — that the human race, like all other orders of life, is certain to increase in numbers until starvation sets a limit, unless, indeed, the human race, unlike the lower orders, shall take thought of its tendencies and set itself to rational, purposed, continuous resistance.

Is overpopulation coming?

76. All orders of vegetable life press hard upon one another, and increase to the limit of their opportunity. The weaker go to the wall simply because the stronger are pushing for place. Wherever fertility allows and conditions permit, there life multiplies to the limit of possibility. The stress never relaxes, or if it relaxes gives only a short respite for a more rapid increase. Vegetable life maintains itself primarily upon the inorganic, or, as we commonly say, the mineral, and in turn furnishes

the nourishment upon which the animal kingdom is maintained. True, animal life may prey upon itself, but its ultimate supply of nourishment is found in the vegetable kingdom. In this power of vegetable life to assimilate inorganic matter, and in the dependence of the animal kingdom upon the vegetable, is found the ultimate basis of the classification into the three kingdoms. Vegetable life is distinguished from animal life by this power of assimilation of inorganic matter. All flesh is indeed grass, as the horse in the old song is said to have pleaded in excuse for biting his master. While one form of animal life is the prey of another, it is only as an intermediate form of grass. Although some day the scientists may tell us how to obtain from the nitrogen in the air and the coal in the bin our necessary food, it remains certain that till then the number of human beings upon the earth must be limited by the capacity of the earth to bring forth its supplies of vegetable product.

All orders of brute life disclose the same tendency toward increase which we have remarked in the vegetable world. The limit is the limit of subsistence, modified only by the measure in which animal life preys upon itself.

But humanity is rarely the prey of other orders, and war and murder do not, in modern days, greatly affect the total of the world's census. Famine is not common, epidemics are mostly famine in disguise, and famine itself is merely temporary insufficiency in vegetable product. The world has made an unexampled increase in population during the last two hundred years. Where is it to stop, unless when famine has become the normal and usual state of man?

We have not space to examine closely into the correctness of this gloomy Malthusian forecast, but only to bring clearly into view its different and difficult aspects. There is room for question how far what is true of vegetable and brute life can be assumed to hold with the human race. If, as nations and individuals prosper increasingly in resources, wealth, and civilization, they come to bring into the world and to rear fewer and fewer children rather than more, there is need enough to worry, but for an altogether different reason from that of the Malthusian foreboding. What is your observation as to the homes which contain the most children? Do the children indicate by their number the relative wealth of parents,

and their relative ability to furnish sufficient bread and butter for the child appetite? Is it the rich or the poor who are prolific?

77. At any rate, the law of diminishing returns appears to apply chiefly to the agricultural industries — the industries of raw material. How far, if at all, it applies to mining or to sea-fisheries is not so clear. And it may happen that other industries disclose as important tendencies toward increased productiveness. Such, indeed, is the fact. While the race may find it increasingly harder to produce its food, it may have an increasingly larger share of time and capital to apply thereto. The tendency by which this becomes possible is called the law of increasing returns.

The law of increasing returns.

In a sparsely settled country enterprise will commonly be found to busy itself for the most part with the extractive industries — the industries of raw material — since these are the industries which, for the time, offer the highest remunerations and require the smallest outlay of capital. But these are the industries to which the law of diminishing returns applies. As population increases, this law tends to become increasingly manifest, and the advantages of the extractive

industries correspondingly less. On the other hand, as population and capital increase, the relative disadvantages of manufacturing and kindred industries decrease. Manufacturing industries soon gain a foothold; nor is this entirely due to the tendency toward diminishing returns in extractive industries; it is in part due, also, to the tendency toward increasing returns manifested in other industries. It is easier to make ten hats after one pattern than to make ten different patterns of hats. This is true even with the methods of hand industry, and more noticeably true in more highly developed conditions. The larger the market, the greater the possible economies in production; the more extended the division of labor, the more marked the advantages to be derived from machinery, and the more important the economies possible in the use of capital. Every improvement in transportation which enables a larger number of customers to be served from one centre of supply, renders possible larger economies of production at this centre. An increase in population acts in a parallel manner. So manifest is this tendency toward diminished proportional expense in manufacturing industries, that it is rarely over-

come by the tendency toward advancing expense characteristic of raw material, excepting in cases where the manufacturing processes have comparatively small part in the cost of the finished product. It follows, then, that if food comes to require more time and effort to get it, the race will have more time and effort to spare for that purpose.

78. It is not clear that, as usually stated, the tendency toward increasing returns deserves to be termed a law. The economies possible from larger markets and increased division of labor give no indication of being inexhaustible. But the tendency toward increased productiveness, through the development of man in tastes and desires, as well as in the science and technique of industry, is seemingly persistent. On this side alone the law of increasing returns is open to no question.

Is there such a law?

SUGGESTIVE QUESTIONS

Why have cities grown so rapidly within the last fifty years?

What kinds of business centre in cities?

Do improvements in agriculture tend chiefly to the increase of the rural or of the urban population?

Is the great growth of cities peculiar to the United States?

Are there proportionally more or fewer people employed in agriculture now than fifty years ago? Why?

Is this growth of cities likely to continue?

What effect will improvements in transportation have? Improvements in machinery?

What effect from improved suburban transportation on the density of cities?

What effect may the electric motor as power have on the large-factory system? In what degree?

CHAPTER XI

MONEY GENERALLY

Why is the value of gold more stable than that of coal or iron?

In what sense is the value of gold fixed by sacrifices of production? Is this a quick or a slow process?

In what sense can money be consumed?

What do you intend to do with the next money you get?

If a ten-dollar bill were given you on the condition that you should always keep it, would it be worth your while?

If a hundred-dollar bill were given you, would this increase the total wealth of the world?

Would it increase your wealth?

Suppose each man's cash were increased by one hundred dollars, would this increase the wealth of the world?

If the money in the possession of each member of society were doubled, would this increase the wealth of any individual?

Do you suppose that after this doubling, each dollar would buy as much as before?

If there were no money, how would you go to work to buy a book? Would the bookseller be willing to take hay in payment?

Why would not iron make good money? Brass? Wheat? Cattle? Hay? Diamonds? Tobacco?

So far as we now see, in what important respects do

gold and silver differ in characteristics from the above-named substances?

Mention some uses for gold and silver other than as money.

Is paper money useful otherwise than as money?

Mention some of the advantages of division of labour.

79. It was sufficiently explained in the opening chapter that people want money only in the sense that they want the things which money will buy. When you sell something, your purpose does not stop with getting the money. That is only a half-way stage toward getting the things you want in place of what you sell. That is to say, the receipt of money marks the half-way point in an exchange of goods. It may of course be true that when you sell and get the money you may not know what you are going to buy, but if you were never to buy anything, you would have preferred to keep the thing you had. And so, as was said in Section 2, when we speak of the love of money we really have in mind the love of the things in life which are bought and sold. Money stands only as a general symbol. In substance it is a power of purchase founded on the fact of a prior sale or service.

80. The function of money is analogous to

that of tools; we do not desire these for themselves, but for the things they enable us to do; we do not desire labor for itself, but for the things which it produces; so money is helpful because it enables us easily and conveniently to make exchanges of goods. Barter would be an inconvenient and impracticable way of carrying on exchanges. The advantages of currency are best illustrated by assuming the absence of it: suppose that A desires to exchange hats for boots; B has boots, but refuses to trade with A, because B himself wants, not hats, but flour. If it turns out that C, who has coats, wants neither boots nor hats but potatoes, the three men can do nothing with each other. A must hunt about until he finds some one who has boots and wants hats; B, some one who has flour and wants boots; C, some one who has potatoes and wants coats. And even if A finds a man having boots and wanting hats, it may be impossible to trade because of a difference in value between the desired quantity of boots and the desired quantity of hats. B and C may meet with similar difficulties. Jevons gives the following illustrations: "Some years since, Mademoiselle Zélie, a singer of the Théâtre Lyrique at Paris,

What use does money serve?

made a professional tour round the world, and gave a concert in the Society Islands. In exchange for an air from *Norma* and a few other songs, she was to receive a third part of the receipts. When counted, her share was found to consist of three pigs, 23 turkeys, 44 chickens, 5000 cocoanuts, besides considerable quantities of bananas, lemons, and oranges. At the Halle in Paris, as the prima donna remarked, this amount of livestock and vegetables might have brought 4000 francs, which would have been good remuneration for five songs. In the Society Islands, however, pieces of money were very scarce, and, as Mademoiselle could not consume any considerable portion of the receipts herself, it became necessary, in the meantime, to feed the pigs and poultry with the fruit. . . . When Mr. Wallace was travelling in the Malay Archipelago, he seems to have suffered rather from the scarcity than the superabundance of provisions. In his most interesting account of his travels, he tells us that in some of the islands where there was no proper currency, he could not procure supplies for dinner without a special bargain, and much chaffering upon each occasion. If a vendor of fish or other coveted eatables did not meet with

the sort of exchange desired, he would pass on, and Mr. Wallace and his party had to go without their dinner. It therefore became very desirable to keep on hand a supply of articles, such as knives, pieces of cloth, arrack, or sago cakes, to multiply the chance that one or other article would suit the itinerant merchant."

If trading were impossible, each of us would have to produce everything that he consumed; we should be Jacks at all trades, masters of none. Under the opportunities of exchange, individuals and nations follow the lines of their greatest ability and advantage, and exchange their surplus in product for the surplus of others. Thus the aggregate social product is increased, and thereby the individual share — the quotient — is enlarged. Currency facilitates this specialization of labor, commonly termed division of labor, by facilitating exchanges. Whenever we trade, it is because the thing that we get we value more highly than the thing that we part with. Money, or more accurately currency, is a means of transportation as truly as are railroads and steamships.

81. It is important to understand what qualities are essential in any material used for

money. Primarily the money commodity must be adapted to the needs of ordinary cash exchanges: great purchasing power must be contained in small bulk; all specimens must be of equal quality; division and combination must be possible without loss of value; the value must not be so great as to render the medium over minute for small transactions. Hay would be too bulky and too variable in quality; diamonds too valuable, too variable, and practically not subject to subdivision or recombination. The pin and needle business would not flourish with diamonds for money. Any material which should answer these requirements would serve acceptably as a medium of exchange, were it not for the fact that exchanges are sometimes a long while in completing themselves. When you sell your hats you may not want immediately to purchase their equivalent; possibly you do not yet know what you will purchase, or, if you know, you are not yet in want of the thing. Thus the money which you get must be something which will not fall in purchasing power by reason of chemical changes or by reason of fluctuations in supply. Your money is a note of demand payable by society in market

The necessary qualities.

products. Wheat and hay would deteriorate in quality, and are at one time abundant and at another time in short supply.

82. Again, while not so clearly, yet ultimately as truly, all cases of mortgages, notes and bonds, bank deposits, and credits in general are protracted instances of exchange. The wholesaler sells his groceries at three months' time. Instead of receiving his pay immediately in commodities, or in money with which to buy commodities, the payment side of the trade is postponed for a term of months. It is important, then, that the medium of exchange shall not vary in purchasing power. When you lend, you really sell the right to things; when you are repaid, you get things in return. Thus a loan is, in essence, a long-time barter. When you have sold your hats, you allow X to take the money for which they sell. It is the same as if you had sold X the hats or the goods which he buys with the money. When he pays you, he really returns to you your remuneration for the hats. If the payment is a fair one, the money in which he pays must not have gained or lost in its control over the means of satisfying human needs. Thus,

Credit is protracted exchange.

money has to serve not only as a medium of quick exchanges, but as a standard of deferred payments — a means of effecting exchanges requiring long periods of time for their completion.

83. Gold and silver approximate most nearly of all commodities to these requirements. Neither is greatly subject to rust, decay, or chemical action. Both are absolutely uniform in quality wherever found, and are subject, without loss of value, to division and combination. Both comprise large value in small bulk. Not only this, but the annual product of each is so small in proportion to the entire supply, that rapid fluctuations in value from supply causes are impossible. An amount of water which, poured into a washtub, will noticeably change its level, will not greatly affect the depth of a cistern.

84. Currency has, then, three distinct functions: that (1) of facilitating ordinary exchanges; (2) of serving as a measure of value in current business; (3) of affording a standard of deferred payments or a reservoir of savings.

85. Now while all agree that gold and silver possess, in a remarkable degree, the qualities desirable in money, no one will assert that either can be regarded as an ideal money. The

failure chiefly lies in this third function — that of serving as a standard of deferred payments. It is sometimes argued that if one has borrowed an ounce of gold, or a dollar of gold, or a pound of gold, he ought to be willing to return an equal weight in payment, just as if he had borrowed a ton of iron or a barrel of flour. The iron or the flour may have changed in value either by rise or fall, but this is a risk which each party to the contract accepts and from which no agreement to be performed in the future can be free. No one is wronged; the contract is a fair one — only it is in some measure speculative. So it is urged with respect to gold; one has borrowed a pound — let him return a pound. No one can expect either gold or silver to be absolutely stable upon the market, relatively to other commodities — that is, to preserve an unfluctuating exchange power. Everybody knows that sometimes prices rise on the average and again they fall — that is to say, gold increases or loses in purchasing power, and there seems to be no way to help it. Gold is a commodity like other commodities; while it may fluctuate less than others, it can hardly be expected to be free from all fluctuation. How is the debtor

Is there an ideal money?

wronged, if, when the time of payment comes, the gold will buy more than when it was borrowed? Suppose the creditor not to have loaned, or suppose the debtor to have kept in hand the very gold coins which he borrowed: why should the creditor be worse off for having loaned or the debtor differently treated for having spent? Would he likewise object to carrying out a contract for flour or iron?

But an ideal money would be a money that did not fluctuate in purchasing power. Possibly enough there will never be found an ideal money; probably there will not. It may be that there is less of speculation in gold contracts than in other contracts, but a perfect money would not be speculative at all. When we buy wheat, or cattle, or groceries, we commonly promise to repay in money rather than in kind precisely because we want to attain as nearly as possible to an equality of purchasing power between what was received and what is returned. If the standard of payment itself fluctuates, this is in itself an evil.

We must remember also that one does not borrow money for the purpose of consuming it, but of spending it. So when the lender is paid he uses the money for reinvestment or

for purchases, and not as a commodity to be consumed.

86. The fluctuation of the purchasing power of money is so slight that it does not materially interfere with the ordinary day-to-day business. It is only in long-time contracts that the question becomes of great importance. As bearing upon American political questions, it is now, for example, of great interest to determine whether gold has not in the past twenty or twenty-five years considerably increased in purchasing power, and if so, in what degree. The advocates of silver coinage make it one ground of attack upon the gold standard, that under it the debtor is constantly put to loss to the corresponding advantage of the creditor. In support of this they point to the general fall in prices, which they assert to have taken place for a number of years and to be still taking place. The opponents of silver coinage meet this attack in different ways. Some deny any general or average fall in prices. Will this denial hold? Others admit the fall, but insist that this is not an increase in the value of gold, but rather a decrease in the value of other commodities, consequent upon the cheapening

How this bears upon the silver question.

of the methods of production. Do you see what they mean by this? What is value?[1]

The demand for money.

87. We have seen that the utility of currency lies, for the most part, in its service in facilitating exchanges. There is, then, as truly a demand for money as for any other commodity. The demand for a medium of exchange is approximately measured by the volume of exchanges to be made.

[1] The Silver Question. — From 1834 up to 1873 a certain weight of gold or sixteen times this weight of silver was permitted under the United States law to be coined as a dollar; any one in possession of either gold or silver was entitled free of charge to have these stamped at the mint as money, a given weight of silver making one-sixteenth as much money as a like weight of gold. This is what is meant by free coinage of gold and silver at the ratio of 16 to 1. Practically no silver was ever coined under this law, because silver was too valuable relatively to gold. Evidently if silver were of equal value with gold, weight for weight, no one would have it stamped as money at a ratio of 16 to 1. This would be to stamp sixteen gold dollars worth of silver as worth one dollar. So if silver were at the ratio of 15 to 1, that is, worth one-fifteenth of gold, no coining of silver would be done at a valuation of one-sixteenth. The reason that no coinage of silver was ever done under so-called free coinage was that silver never came to be worth as little as one-sixteenth of gold till 1873, and a little before this point was reached the coinage right was withdrawn. Gold has since remained the only metal freely coined for whoever may present it. The silver which has been coined since that time, as well as that coined before, has been bought by the government and made into money, just as are nickel and copper, without any attempt to make the bullion value equal to the face value.

The ratio of silver to gold is now about 33 to 1. It is asserted by the opponents of free silver that as long as gold is worth thirty-three times as much as silver, it cannot be coined or kept in circulation if treated as only worth sixteen times as much, — that silver would be coined in immense quantities,

We say approximately, since barter is always possible, though ordinarily not of considerable volume.

Clearly enough there would be no necessity for money and no demand for it, if each of us were to produce everything that he consumed. It is equally obvious that division of labor becomes possible only on terms of possible exchange of

Demand limited by division of labor.

and the purchasing power of the dollar lowered to something like one-half what it now is. They reason that gold would entirely disappear from circulation as money, according to Gresham's Law.

Of the advocates of free silver, one part believe that with free coinage silver would be so raised in value by the increased demand, and gold so lowered in value by the supplies set free from use as money and thrown upon the market, that the ratio would return to 16 to 1, and the two metals circulate side by side as money. These are the National Bimetallists. Others of these advocates admit that gold would be excluded from circulation. These are the Silver Monometallists. The International Bimetallists believe the co-operation of the European nations necessary in fixing the coinage ratio. Some of these regard 16 to 1 as a practicable ratio; others advise a higher ratio.

The extent of your investigations into the silver question must rest with yourself and your teacher; the subject is too large for adequate treatment in an elementary course. The writer may, however, remark in passing that he does not concur in either of the methods, set forth in the text, of meeting the silver argument; that he believes that prices have considerably fallen in the last twenty-five years; and that this fall is not entirely, or even in larger part, to be ascribed to temporary disturbances in the way of crisis or panic. He is also disposed to admit that had our government, in 1873, adhered to silver as a standard instead of gold, the silver standard would have afforded a much closer approximation to the ideal than has gold; and yet he does not favor a return to the free coinage of silver in America alone on any terms.

products. It now becomes important to note that, population and per capita production remaining the same, the volume of exchanges increases as division of labor is more extended; that the aggregate of exchanges is approximately limited by the degree in which division of labor is extended; and that, therefore, the advantages of exchange are exhausted when no further economies in production are promised by an increased division of labor.

Demand is increasing.

88. But population and per capita productiveness do not remain stationary; the population of the earth is rapidly increasing; the development, also, of the sciences and arts, and of machinery and transportation, not only stimulates the division of labor, the specialization of industry, but increases the per capita production of commodities. The ends of the earth now trade with each other.

It ought, then, to be clear that the need for currency is not proportionate to population alone, or to wealth, or even to per capita productiveness alone. It is the volume of exchanging to be performed which furnishes the measure of the demand for currency. This is largely a matter of degree of civilization and

manner of industrial organization. In a general way, the per capita requirement for currency is enlarging. No amount can be said to be required per capita simply, but only per capita in view of the average productive efficiency and the established industrial methods. A sufficient per capita for one country may be entirely inadequate for another.

89. The value of the currency unit, the dollar or franc or pound, is the point of adjustment between the demand for currency and the supply of currency. To this extent, there is nothing difficult or peculiar in currency principles. If the demand increases without a correspondingly increasing supply, money rises, that is, prices fall. So, increases in supply tend toward higher prices, that is, toward depreciation in the purchasing power of the money unit. If the relation between demand and supply changes, the value of the unit changes to correspond. A permanently insufficient currency is therefore an impossibility; prices must fall until at the new unit value the supply is sufficient. So, if the currency is redundant, prices rise until the redundancy is cancelled. Currency is like a gas which always fills its receptacle. A cur-

The value of the money unit.

rency out of equilibrium is always in process of becoming sufficient. But this process of becoming is rarely a comfortable one, and is always attended with injustice, and commonly with disaster, as will be more clearly seen in our examination of commercial crises. These fluctuations in prices are to be avoided if possible. It is by this test, then, that the normal supply of money is best determined. A supply sufficient in kind and quantity to preserve unchanged the purchasing power of the dollar would be the ideal condition for all ordinary cases.

SUGGESTIVE QUESTIONS

Explain the analogy between exchange and transportation.

Outline inconveniences of doing business without a medium of exchange.

Show that a sale for money is only half of an exchange of goods.

Show that a loan and repayment of money really equal an exchange of commodities.

What forces are working to increase the demand for a circulating medium?

As far as you can see, is gold alone, or are gold and silver together, increasing in volume with a rapidity corresponding to the demand?

If not, what strikes you as a necessary result?

What will happen if currency is in excess? Is insufficient?

Who are injured when prices rise?

Who, when prices fall?

DEMAND AND SUPPLY OF CURRENCY

What effect would falling prices have on the production of gold?

Would this result probably be sufficient fully to overcome the tendency toward a fall in prices?

What effect would an increased output of gold at the mines have?

Suppose the output of this year to be double that of last year; would this double prices?

Have you any gold about your person?

Is it in the form of money? In what forms?

What effect would more plentiful gold have on its use for other than currency purposes?

Would this effect be sufficient entirely to prevent a rise in prices?

90. In a general way the nature of the demand for currency is clear enough. This demand rests upon the utility of currency in permitting the division of labor, which division of labor becomes possible only on condition of possible exchange of products. With currency, as with all other commodities, value marks the equilibrium point between demand and supply. As the business to be transacted

becomes greater, the value of currency will rise, that is to say, prices will fall — money will buy more — unless at the same time the supply of currency expands. If the volume of the currency increases, prices will tend to rise — that is to say, a given amount of currency will buy less goods.

The cause of the demand for money.

91. As has been said, the demand for currency results from the disposition to trade — to exchange things. Now note that this disposition to trade is strong just in proportion as there are advantages to be obtained thereby. Both buyer and seller believe themselves to be benefited in every trade, else they will not trade. The quantities, therefore, which we have already studied as buyers' and sellers' quasi-rents explain the demand for currency.

Should currency be equal to wealth?

92. But there are many things owned by us which we would hardly sell at any price, or, at all events, at anything which any one would give. You ordinarily buy things because you want them for use and not for re-sale. Whatever you sell, you sell with a view to replacing it by another thing which you want more. When you have obtained this other thing, you commonly intend

to keep it; that is why you bought it. Thus, only a small part of the wealth of the world goes to swell the demand for currency — only that part which is being offered for sale at any particular moment. Those people evidently misunderstand the case who believe there must be as much money as there is wealth, or who fancy that the general welfare would be increased by indefinitely increasing the number of dollars.

93. We must now briefly examine some of the sources of supply of currency. Almost all peoples use, in some measure, either silver or gold as money. Where this is true, and where also it is true, as it generally is, that anybody having the bullion can have it stamped as money, the value of the money will be equal to the value of the bullion which it contains, and the purchasing power of the money will equal the marginal cost of production of the bullion. That is to say, if a day's labor applied to gold digging will procure more hats than will a day's labor applied directly to hat making, the production of gold will increase until this advantage is cancelled. Thus, any increase in the purchasing power of money will tend to stimulate the production of

Whence comes the supply?

the money metal, and after time enough has elapsed, the value of the money will come to equal the marginal cost of producing it.

94. Suppose, however, that a great increase takes place in the product of the mines, richer mines having been discovered or better processes of working them devised. This will tend to enlarge the volume of currency and thus to raise prices. But not all the new product will be made into money. Not all the gold already produced is used as money. Increased supplies would lower its value, and gold would come to be employed for many new uses as well as in larger measure for old uses. Only a part of the new product would go to expand the volume of currency.

Effect of increased supply.

In the next chapter we shall examine the ways in which paper and credit come, for some purposes, to take the place of money. We are, however, already prepared to note one important difference between a currency having a real commodity value — a currency marketable for ordinary use and consumption — and a currency made, for example, of paper, and having no value, or an inappreciable value, for other than currency uses. A considerable increase in the supply of gold would not considerably

affect the amount of gold used as money, if the ordinary market demand were capable without a great change in value of absorbing the larger portion of the new supply. At any rate, to increase the world's supply of gold by an amount equal to the volume used as money would not be to double the amount used as money. But with paper the case is different. Paper put out as money will remain as money unless it gets paid back to the government or becomes so worthless as to be used for rags. The supply adjusts itself to the demand only by a fall in purchasing power — a rise in prices — proportional to the increase in volume.

DIFFERENT KINDS OF CURRENCY

The following is the report of a typical country bank in the fall of 1894. A careful analysis should be made of this report. Notice that the bank has, of capital, surplus funds, and undivided profits, about $76,000 invested, and has with it upon deposit $255,887.94 : —

FIRST NATIONAL BANK

CHARLES CITY (IOWA), 1894

Loans and discounts	$237,600 40	Capital stock paid in	$50,000 00
Overdrafts	385 36		
U. S. Bonds to secure circulation	12,500 00	Surplus fund	10,000 00
Due from other National Banks	32,713 04	Undivided profits less current expenses and taxes paid	16,533 70
Furniture and fixtures	1,000 00		
Due from State Banks and bankers	782 52	National Bank Notes outstanding	5,760 00
Due from approved reserve agents	24,888 90		
Checks and other cash items	1,649 79	Individual deposits	255,887 94
Bills of other National Banks	7,972 00		
Fractional currency	93 63		
Specie	10,035 50		
Legal tender notes	8,000 00		
Redemption fund with U. S. Treasurer	562 50		
Total	$338,181 64	Total	$338,181 64

QUESTIONS

Show what has become of this money.

How much in notes or overdrafts is due the bank from borrowers?

How much has been loaned to other banks by way of deposits?

How much may this bank be called upon to pay on any day?

What are its immediate resources for this purpose?

How much cash has it on hand?

How much of this is gold or silver?

How much of its resources are in the form of demand rights against other banks?

What has the bank, in fact, to show for this depositors' money?

How are national bank notes secured?

In what payable?

Get one of these notes and see what the bank agrees to do.

Is it probable that all depositors will call for their money at one time?

What would happen if they did?

Would there be much profit in banking if, for every dollar left at the bank, the bank must keep a dollar on hand?

95. Suppose that D gives to L an order upon you for fifty dollars. L pays a grocery bill with this, and the grocer brings it to you and discharges a claim which you hold against him for that amount; you tear up the order. A large amount of business has been transacted by the use of this order and without the need of money. Credit has served as a substitute for money.

How credit serves as currency.

So when you pay a debt by a check upon the

bank, this check may pass through several hands, doing work similar to that of money, permitting exchanges, making payments, etc., and finally, when the check comes to the bank, it is merely charged up to you and credited to the person who deposits it. No money need have been used in the entire series of transactions.

We thus see that the circulating medium is composed of different elements. The student may have been puzzled by the use in one place of the term "money" and in another of the term "currency." Money and currency are not equivalent terms. Currency includes all forms of exchange media; money is but one form of currency. We speak of coin, greenbacks, and the like, as money. But the larger part of business is transacted through credit substitutes for these, — through drafts, bills of exchange, negotiable notes, and the check and book-keeping devices of deposit banking. In their origin, it is probably true that all currencies were composed solely of commodities, with a well-defined utility for other than currency purposes. But with the development of society, the use of substitutes has increased. The bank customer thinks of his deposit in the

bank as money, and it really serves him all the purposes of money. The right to have the money when desired is as good as the actual possession of it, and is as readily and as serviceably transferred. When the bank customer wants to pay a bill, he draws a check or order against his account. The receiver of the check places it in the bank and gets credit for it, the drawer is charged with it, and the transaction is completed, no money having been transferred. These deposit accounts in banks commonly aggregate several times the cash resources of the banks. These cash resources also are largely made up of deposit claims against other banks. London, for example, is the banking centre not only for a large part of the business of England, but also for a considerable portion of the business of the world. International interest payments and the transactions of foreign exchange are effected by drafts on London. Balances between London banks are settled, not in money, but in checks and book-keeping at the Bank of England. It results that the enormous business of the London banks, aggregating hundreds of millions of dollars daily, requires the transfer of only a fraction of one per cent in money.

It becomes intelligible that the English people are able to handle their business affairs upon less than twenty dollars per capita of money, while France employs over forty dollars per capita, though doing a much smaller per capita of business. One rarely comes across a bank in French cities — deposit banking is scarcely practised, checks unknown in ordinary affairs, and even the Paris clearing-house, the only one in France, is scantily patronized. Working people keep their salaries in their pockets; peasants their savings in their stockings; and each merchant serves as his own banker.

Government issues.

96. Not only have business men invented methods of convenience in doing business which in effect are creations of currency, but governments and banking institutions have made large issues of forms of money known as bills, bank-notes, "greenbacks," and the like. We have seen that all these substitute forms of currency perform the functions of bullion currency (coin) in effecting exchanges, and therefore operate in this regard as would an actual increase in the supply of the commodity used as money.

SUGGESTIVE QUESTIONS

When a merchant deposits in the bank, say $1000, is all of this usually in actual money? In what else?

Suppose you have $1000 to your credit — on deposit, as it is called — at the bank, is this money really there?

How much is probably at the bank to answer for your $1000?

If you desired to pay a bill, would you probably draw money or make a check?

How could the merchant make the check serve him as money without ever seeing the real money for it?

What is a clearing-house? See a banker and ask him to explain it to you.

GRESHAM'S LAW

The Cheaper Money Drives out the Dearer

As aluminum has become cheaper, what new uses have been found for it?

What effect would a decrease in the exchange power of gold have on its use as plate and gilding and ornament?

When a piece of gold in your possession will make for you a gold watch case or will buy you a second-grade bicycle, we will suppose that you choose the watch case; now suppose prices change so that the gold will command a first-grade wheel — what change would you probably make in your application of the gold?

97. Any expansion of the currency, whether by credit or otherwise, tends to lower the purchasing power of each money unit (dollar,

franc, pound, etc.). This fall in the exchange power of the money commodity, for example gold or silver, makes it possible for the commodity to be applied to many new uses. So, as paper money or credit comes to circulate as currency, there is some tendency toward disappearance from money uses of that part of the currency which can be used for something else. The gold flows out into other channels. So we say, in the terms of what is called Gresham's law, that the cheaper money drives out the dearer. But do not allow this expression to mislead you. The expansion of currency causes a fall in the purchasing power of the unit. This fall releases the gold or silver to the stronger pull of the outside market — the market of art and industry. The dear money is not elbowed or pushed out, but rather induced or beckoned out. Cheaper money relaxes the currency demand, and thereby releases, in some measure, the currency which is the object of other kinds of demand. In truth, expansion by cheaper currency does not differ from expansion through an increased supply of the original currency commodity, except that, in the case of an

Poor money drives out good.

addition of cheap money, all the outflow is confined to the dearer money, the cheaper continuing in its currency use.

98. What we have already said as to Gresham's law applies in any society, and would be true were the society in question the only one in the world. But commonly these domestic tendencies are not of very great importance. Similar tendencies are, however, to be remarked in international trade. In domestic movements of currency, Gresham's law means that inflation (expansion or increase) makes some forms of currency more desirable outside of the currency use than inside — more valuable for use than for exchange. In international affairs Gresham's law means that expansion makes some forms of currency more desirable outside of the country than inside — more desirable for buying abroad than for buying at home.

Gresham's law in international trade.

Suppose, for example, that by some form of domestic expansion — for example, by paper money or by increased use of credit — prices have been raised ten per cent; that which was originally 90 here and 100 abroad and was exported, now rising to 99 here ceases to be exported; that which was 90 abroad and 100

here and was imported, now rising to 110 here, is still more largely imported. That part of our currency which stands best abroad, and upon which therefore the pull of the foreign market is strongest, will be exported to pay the money balance which we come to owe abroad. This tendency toward the export of money will continue till we have cancelled the difference between domestic and foreign prices. While the export of our money tends to bring our prices down, the import to foreign countries tends to raise the prices there.

99. Let it be supposed, in further illustration of international currency movements, that the money circulation of the United States is one billion five hundred millions, and that of Europe ten billions; suppose, also, our billion and a half to be all gold. If now an attempt be made to double our money volume by the issue of a billion and a half of paper dollars, it is evident that our prices will tend to rise. The result must be an increase in imports and a decrease in exports. As long as we have the gold to send, our unfavorable trade balance will be settled in exported gold, and prices will tend to rise abroad. When international prices have reached their new level, the

case will stand as follows: the aggregate currency of Europe and America will have increased from \$11,500,000,000 to \$13,000,000,000, and a general advance in prices of 13 % will therefore have taken place. Our currency must, then, have increased from \$1,500,000,000 to (\$1,500,000,000 × 1.13) \$1,669,500,000, — \$169,500,000 of this being gold, and the remainder of our gold having left to swell the circulation of Europe.

An issue of two billions of paper by us would give the following outcome: all our gold would have departed for Europe; rise of prices in Europe of 15%; our need for money on this new gold basis, \$1,725,000,000; our actual circulation, \$2,000,000,000; gold at premium of 15.9%; rise in prices as reckoned in paper money, 33%.

100. Bearing these facts in mind, the futility and danger of any local effort toward an increased currency becomes evident. Attempts of this sort can attain their purpose only in proportion as the currency of the world is expanded, unless the currency of the nation attempting expansion wholly loses its commodity elements — *e.g.* gold — and becomes a non-international currency — *e.g.* fiat (irredeemable paper).

SUGGESTIVE QUESTIONS

Is it possible permanently to have exports exceed imports?

What effect on the volume of money abroad? On the volume of money here?

What effect on prices abroad? On prices here?

What effect on further exports?

What ultimate effect on exports must follow from the prohibition of imports?

Is it worth while to increase the domestic currency and to expand prices by restricting purchases, unless we expect later to increase our purchases?

What has this to do with protective tariffs?

Is it true of nations that international division of labor is possible only on condition of possible exchange of products?

Is division of labor well for people inside the same country?

Is international division of labor well?

Do you see any bearing of Gresham's law upon the silver question?

In a commodity currency, where does the supply come from?

What would measure value if the legislature fixed the supply, for example in paper?

Would paper or commodity currency best adapt itself to demand?

Would an increased use of silver as money set free any gold for commodity uses? Why?

How would the value of gold as commodity be affected?

How would its purchasing power as money be affected?

Would its purchasing power as money fall, unless its value as commodity fell also? Why?

Is the purchasing power of gold as money given to it by the fact that it is stamped by the government?

Does its purchasing power result in any degree from the fact that it is used as money?

May its use as money be effective in this regard, though the government stamp is not effective?

Is it true that the stamped coin is worth exactly the value of its contained bullion?

If the stamp does no more than certify the weight and fineness, who pays for the stamping?

What is seigniorage?

COMMERCIAL CRISES

What kind of years generally precede panic times, as to (*a*) prices, (*b*) wages, (*c*) speculations?

What kind as to the creation of (*a*) capital, (*b*) the building of houses, (*c*) of factories, (*d*) of railroads?

Have the people been mostly at work, or have large numbers been unemployed?

Has the social product been large?

How about savings?

If prices have been high and business large, what must have been true as to the volume of currency?

Has the volume of money increased?

Are flush times times of relatively large production of the precious metals or times of unusually marked tendency toward the coinage of accumulated stocks of precious metals?

How did these high prices become possible?

101. We have already seen that a large share of modern business is transacted through

the use not of money, but of substitutes for money — through different forms of circulating credit, or through the book-keeping devices of deposit banks and clearing-houses. In local trade, checks supply a large part of the currency demand. Drafts and bills are the media of debt payment, not only between city and city, but between country and country. Only balances are paid in money, and the clearing-house greatly reduces this latter employment. Bank balances in London are paid by book-keeping in the Bank of England. It is evident that all exchanges completed without the use of money stand with relation to the demand for money as if they had not taken place. Not only this, but more rapid transportation has shortened the time of employment of money in the payment of balances. These influences together have worked powerfully to lessen, if not to cancel, the tendency toward appreciation in the currency unit, due to enlarged demand for exchange media. The customer pays the retail trader by check. The retailer pays the wholesaler by draft. Railways and telegraphs have almost cancelled the element of distance in book-keeping and payment relations between

The great credit system.

communities. Negotiable notes, bills of exchange, open accounts of debt and credit, all contribute to the economy of money. In England and America the credit system is widespread, thoroughly organized, delicately adjusted, swift, effective, and complicated. It is carefully protected by guaranty organizations, by great trust companies, by all-powerful and all-inquisitorial mercantile reporting and collection agencies. In addition to these, there are the investment companies, the savings banks, and the insurance companies, all of which are intermediaries for the gathering and distributing of credit. Their business is to guard the credit system with extreme watchfulness in protection of their legal guaranties. Thus the credit system, resting upon infinitely intricate relations between manufacturers, jobbers, wholesalers, retailers, and consumers, has for superstructure the many-storied fabric of deposit and discount banking, of stock investment and collateral borrowing, of savings and insurance investment, and of trust and mortgage guaranty companies. There are even companies to guarantee the validity of titles and the good faith of employees.

102. Not all of these credit devices serve as economies in the use of money. Where items in open account offset each other, the economy is manifest. Where credit circulates, the economy is manifest. But the mere granting of credit, awaiting a later settlement, does not lessen, in the outcome, the demand for money, but merely postpones it. Credit must be used by transfer in payment of indebtedness before it works as substitute for money. Nevertheless, this non-currency element in credit is none the less credit, and in the making up of disaster is as important as any other. For, carefully inspected and supported as is this credit system, it is the sheerest card-house. Its contrivances for watchfulness and safety are its most shifty and unstable features. No fire-trap could be more skilfully planned for purposes of destruction, with heavy supports and girders of spontaneously combustible timber.

Ante-panic years are prosperous.

103. The period preceding a financial crisis is commonly a period of seemingly great prosperity. There is a popular impression that such prosperity is a mere seeming, and that panic is in the nature of a necessary collapse. It would be

going too far to claim that no bubbles are formed in the course of business expansion, or that these bubbles are not sources of financial danger; but, speaking generally, the popular impression is a mistaken one. The years preceding a panic constitute a period of great industrial activity and of great productiveness. Wage-earners have been well employed; the industries of distribution have been in smooth and successful operation. At the close of the period it will be found that the wage-earning classes have rarely been as well housed, as well clothed, or as well fed. They are exceptionally well supplied with the smaller conveniences and comforts of life. Measured by their own standard, the laborers are prosperous in pleasant homes and large personal belongings. In the aggregate, they represent a large total of material wealth. It will be found true of the farmer that his farm was never under better cultivation, or his herds larger, his buildings more substantial or in better repair, or his home better furnished. Likewise of the manufacturer and the merchant; never were there larger stocks or more warehouses bursting with merchandise. Never were factories daily pouring forth more goods. Turning to

general conditions, it will be found that these prosperous years have rebuilt cities in brick, interlaced states and even continents with railroads, dotted the prairies with farmhouses, beautified them with fields of grain, and covered them with herds. The period has been one of widespread plenty, of remarkable industrial activity and efficiency, of boundless energy and hope. It is strange, it is even impossible, that extensive building operations should, in themselves, result in houseless exposure; that overflowing granaries and fattening herds should foster hunger, or that warehouses of cloths should be the sufficient cause of nakedness. It is doubtless true that these meshes of railroads, these cities of brick and iron, these immense factories and fattening herds, are largely the outcome of reckless hope and borrowed capital; yet it all counts in the world as wealth; it is here. That the capital is borrowed chips nothing from this fact.

104. The elements of danger are not to be found in the industrial situation, which was possibly never before so prosperous in thorough efficiency and organization. The difficulty is financial.

Where is the difficulty?

We have seen that the volume of exchanges

is the measure of the demand for currency; double the volume of currency without increasing the number of exchanges, and you double prices. To halve the currency is to lower prices approximately in the same ratio. These propositions are unquestionable; they hardly reach the dignity of principles — they are mere mathematics. Yet, strangely enough, as applied to the facts of industry they are seemingly untrue. Prices almost uniformly rise with increasing activity in business, and fall with failing business. This is apparently to say that the value of currency falls with an increased demand, and rises with a failure of demand.

The explanation is found in the fact that, with expanding business, the currency also expands, and, commonly, in a degree more than proportionate to the demand for it. This increase takes place not ordinarily in the legal tender element, but in the credit element. Reviving credit always characterizes reviving business. Under existing systems, credit furnishes for currency the only element of ready adaptability. It furnishes, for ordinary conditions, the guaranty of steady market prices. It avoids an enormous application of human

energies to the production of commodity currency. Without it, great expanding business operations would carry with them their own veto in falling prices and vanishing profits.

But these advantages are purchased at the risk of enormous dangers. The commercial crisis marks the period when money takes on abnormal scarcity and abnormal value from the fact that money substitutes — credit currency — contract in volume. The very height of the credit fabric measures the disaster of its fall. It is at the full tide of prosperity that the danger is greatest. If, then, for any reason, whether of extravagance at some point, or of over-production in some industries, or of failure of harvests in some districts, or of over-speculation, or even of business prosperity carried to the point of over-stringency in the loan market, there sets in a contraction of credit, trouble begins. The debtor can pay only by calling in turn upon his debtor. The pressure for payment increases in almost geometrical progression. Not only does credit largely disappear from circulation, but the burden of liquidating existing indebtedness is thrown upon the legal tender and the unquestioned elements of the currency. Panic-

stricken marketings of commodities, and panic-stricken or speculative withdrawals of money from the channels of business further complicate the situation. Endless ruin and disaster follow; prices tumble; this is panic, when even the rich seem poor, when business is stagnant, exchanges are suspended, laborers are unemployed and in want. Immediately preceding it were the headlong rush and exultant activity of prosperity, — when all men were hard at work, though doubtless over-confident, and possibly over-venturesome. And now follows the destruction of wealth. In the course of ample credit, things had arranged themselves in the hands of those who knew best how to use them. Now ensues an enforced redistribution. In the outcome one man finds himself with two houses, and can use but one; or with two horses, and needs but one; and with endless steam engines, and trumpery, and stocks in trade of which he wants nothing. He can only let the property grow old or rot or rust. The wheels of the factory stand still; industry has dropped its tools: and all this, not because there was too little wealth, or too much, but because what there was, was badly arranged to withstand a flurry in credit.

105. It is clear enough that panic is an ebb in credit, and that in proportion as the intermixture of credit in currency is large, is the disaster great. Whatever may be the ameliorations possible, the gravity of the case is not to be questioned. Here is the most noticeably weak point in the modern competitive system. Anything which shall offer a reasonable hope of displacing credit from its enormous development in modern business can hardly be other than a good fortune. The money of ultimate redemption is too small for the credit fabric built upon it. It is like a cone resting on its apex. This delicate and unstable equilibrium is a condition fraught with constant danger.

Advantages, disadvantages, and remedies.

Doubtless so long as credit works, it affords desirable economies in the use of bullion currency and, in some measure, steadies prices. England succeeds in managing a much larger per capita volume of business than does France, and with a much lower per capita supply of bullion currency. But periodically, England suffers acutely from the commercial crisis, while France is relatively exempt. The losses probably outweigh the gains.

106. That which most naturally suggests

itself as a remedy, is to enlarge the currency basis, — to declare that more money of ultimate redemption is needed; therefore start the printing presses or coin silver. But remember that it is the shape of the pyramid, and not the size of it, which is matter of concern. Unless there is found to be some tendency in silver coinage, or in any other form of expansion, to lessen the volume of credit relatively to money, the inflation argument fails.

Is expansion a remedy?

There is no such tendency. Silver expansion, or any other expansion, would be followed by a rise in prices proportionate to the expansion. The degree in which credit circulates depends upon the methods of business and the organization of industry, and not upon the kind of money. So long as manufacturers find it advantageous to borrow capital, so long as wholesalers take credit from manufacturers, retailers from wholesalers, customers from retailers, and all deposit their funds in banks and pay through checks and book-keeping, so long must the intermixture of credit remain an element of danger. In truth, the very bulkiness of silver would, in itself, tend somewhat to increase the inducements to deposit methods.

Silver coinage.

Nor is there any great hope that these credit methods will cease because of their dangers. The advantages and convenience to the individual business man are too pronounced. Here, again, individual interests are not parallel with the general interest. No one business man could afford to stop unless all should stop, and each would gain by violating the rule intended for all. The remedy, if any is possible, lies in the discovery of a currency effectively flexible in time of need.

QUESTIONS

Would it prevent panic if money were all gold? Or diamonds?

Do you see any way to prevent the granting of credit, or the use of credit as currency?

CHAPTER XII

THE COMPETITIVE SYSTEM

107. Every year important discoveries are made in science, and important improvements and inventions are perfected in industry. The great advance which has been accomplished does not so much indicate that progress must soon cease, as that progress is, by the very nature of things, unlimited. It is, indeed, only when we come to examine human institutions, habits, laws, and customs, that we meet the widespread conviction that no progress is in store for the race. One man is sceptical of progress because he believes that in a divinely ordered universe all things are for the best; to assert that whatever is is right, seems to him to imply that whatever is not is wrong. Existing conditions therefore appeal to him as the best. He trusts and is content. A second man believes in natural law. He insists that it is useless to run counter to the nature of things. The suns blaze, the stars roll, the

Is there room for progress?

Can man effect anything?

earth revolves, the tides flow, light and dark succeed each other, the winds destroy or save — and what can man do? He is a mere spectator. Set over against the universe and its power, he is merely as is an insect; studied in the light of science, he is the mere product of his surroundings, like mould or scum; setting himself to strive against the laws of the universe, he is the self-deluded maker of empty motions. Whether things are best as they are or nót, they are as they are, and will remain so. Do not meddle, let things pass as they must — *laissez faire*, *laissez passer*.

Can men change themselves?

108. There is a third point of view, somewhat like the others, but with more of truth in it. Thinkers of this third sort know that man can do much, as he has already done something, in adapting to his needs the world in which he lives, and in subjecting its forces to his service. He has tunnelled mountains, hollowed mines, dredged rivers, reared dikes, spanned cañons, cleared forests, and planted them anew. Steam and gravitation, wind and tide, are harnessed to his tasks. There is no problem which nature sets for man, no difficulty with which it confronts him, that man need fear to meet. But of the

problems which human nature and human character present, let him beware. Man has not made himself, nor can remake. No one can lift himself by pulling at his boot-straps, nor can any man add one cubit to his stature. In matters of human nature and human society men are not directors and governors, but mere observers. Man as he is, men as they are, these, they say, are a fixed term, — the known quantity in the equation of human life. In the years, or the centuries, human nature may be changed, but it cannot change itself. Where any social problem demands for its solution another human nature or a new species of human beings, it is as well to drop the problem as insoluble. If the reformers' new millennium awaits a regenerated humanity, the millennium must be a weary distance ahead.

109. There is a trace of truth in each of these views. It is clear enough that, as related to man's environment, man is a force. Assume, if you will, that he is the product of his environment. He is not therefore necessarily inert and like a mere puppet of the energies surrounding him. He may cooperate or he may resist, just as children may serve their parents or rebel. All talk about

Man is a force.

natural laws and social laws which fails to take account of man as a force, or which regards his share in the social on-going of things as irrational or ineffective or unnatural, is a gross perversion of both language and thought. In the large view there are no unnatural things. The sober common sense of mankind repudiates the lazy optimism which denies all room for progress, even as it condemns the lazy self-distrust which concedes the need but despairs of the remedy. Why should men search and study and strive, if they are mere observers, and there cannot possibly come any result of it all? Science, even, is good for something only when it is good for something.

110. But notice that the thinkers of the third class do not precisely assert the hopelessness or futility of all human effort, but only the helplessness of humanity in face of the difficulties and perplexities which human nature and human character themselves present. But even this much is not true. Just how we are not able to see, yet somehow each of us is conscious of a power within himself of self-mastery, self-help, and self-improvement. But even were this consciousness a self-delusion, there remains to

Men are forces as related to each other.

man the power of one individual over another, since in relation to each individual his fellows are a part of his environment. The human race is not a great indivisible unit, but a group made up of distinct and separate units. One can do something of good or ill in his relations to his neighbor. Societies make laws, punish criminals, and foster education. It is in the power of each man to spread vice or virtue or microbes. To deny this is to deny that good and evil, esteem or condemnation, have any place in human affairs. Society contains within itself the forces which may work for itself help or harm. On any other terms the study of society would be a fruitless exercise, the making of laws a simple farce, the clash of armies an empty parade, courts a sheer mummery, police and fire departments a silly waste.

Thus, as we come to examine the present social system as a whole, or the different aspects of it in detail, we need to guard ourselves from any kind of prejudgment or from ready-made conclusions of any sort.

111. Not a few earnest and capable people regard the present industrial system as intrinsically and irremediably bad. The private ownership of property and free competition in

business are the leading characteristics of the existing social order. The critics of our present social system deny the justifiability of the private ownership of property; they insist that free competition is merely another term for chronic industrial warfare; that business has become a bitterly cruel struggle for existence — a system productive of antagonisms and destructive of kindliness, where each is set to gain by his neighbor's loss. It is, therefore, believed that social safety can be found only in a system which shall make men common owners in the means of production, and conscious co-operators in the business of producing. By making all interests common and general, it is thought possible to avoid the wastes of competition and to still the hates and rivalries of self-interest.

Private property and free competition attacked.

112. Stated thus broadly, the proposal of the socialists is an attractive one. It purports to rest upon the brotherhood of man, to substitute unselfishness for rivalry and distrust, to make all men equal partners in the general welfare.[1] But this programme will

Is there a defence?

[1] This discussion must not be understood to cover all aspects of socialism or all schools of socialistic thinking. Not all socialists expect or desire to do away with rivalry and antagonism; not all insist upon the equal partnership principle; not all give

not bear close examination. It is like those large paintings whose distant beauty changes to daub on near approach. In the first place, we observe that the rivalries and antagonisms of competition have not resulted from legislation or agreement or any sort of compulsion. They have not followed from any conscious purpose or artificial arrangement. Competition and contest have not been enacted. They seem certain to establish themselves unless society consciously interferes to prevent. That is to say, if all men, as men exist to-day, are to work together in a scheme of brotherly love and co-operation, and under some sort of widespread, common ownership of capital and product, they will have to be compelled thereto by force. The other system is the system of freedom. Socialism is the system of compulsion.

113. On the side of the existing system it is also to be urged that there is, in fact, obscurely present in it a very large element of co-opera-

much weight to the brotherhood of man as the basis of social organization; not all look to state compulsion as fundamental to the social structure. Obviously, however, it is possible for us to examine only the more typical ideas and the characteristic traits of socialism as presented by the main body of socialistic thinkers. Almost all agree upon the necessity of the ownership and operation by society of all land and capital, with some manner of joint ownership of the product under some not very specific way of sharing it.

tion, and this, co-operation of a purely voluntary character. The great stock corporations, like railroads, banks, and manufactories, the fire and life insurance organizations and the great secret benevolent orders, all point to a growing spirit of association and co-operation in modern society which seeks no aid from compulsion.

Present system is in part conscious co-operation.

114. Not only this, but the present system, whatever it may be in purpose, is in effect an automatic system of voluntary co-operation. Where division of labor exists, each man must, by some sort of exchange, share his products with his fellows. Division of labor means a mutual interdependence of producers. Exchange of goods takes place for the common benefit; both buyer and seller must believe themselves to be benefited by trading, or they will not trade. It is true that each is trying to get the greatest possible benefit for himself, but neither can reap the whole of it. Each must, in some measure, furnish a help to the other. It is not true that one man necessarily or commonly gains by trade at another's loss. Nor, indeed, is it true that the rivalries of competition are necessarily or commonly harsh conflicts of interest in which

It is almost entirely unconscious co-operation.

the well-being of one is set over against the success and prosperity of his neighbors. True, each is trying to undersell the other — to get the trade, to gain the market, and to control it — at the expense or even at the ruin of his rival. This, however, proves, not that competition is a rivalry between each member of society and society as a whole, but only that it is a rivalry between competing producers. It is a co-operation between each competitor and society. When one producer or seller prospers as against another, it is by offering society the better product or the lower price.[1] Viewed therefore from the point of view of society, competition is a rivalry in offering most for least, — a contest in the rendering of largest service, a war in well-doing — where success is declared to the largest benefactor.

Trade, then, is a form of co-operation — unconscious, it is true, but voluntary and effective. The East Indian laborer is not aware that in result he works in order that an American laborer may consume, nor does the iron miner in England realize that it is the demand

[1] This statement must not be taken as without important exceptions. Speculation, shoddy, advertising, and trickery are not yet well controlled in the competitive system.

of Australia which affords him employment. But it may none the less be true. World-wide competition has brought about world-wide interdependence and co-operation. The industrial brotherhood of man has already come.

Thus, the charge that competition is mere conflict will not hold as a ground of criticism of the present social order. Socialism does not in this respect make good its case. But suppose now that, for a moment, we put socialism upon the defensive.

115. Men now work under the incentive of want, incited and persuaded to effort by their interest in themselves and in those dependent upon them, — wives, children, relatives, and friends. Include all this activity under the head of selfishness, though the term seems, in some measure, an inapt one. But how insure that men shall work strenuously, that society shall consume the largest practicable amount of wealth, if for that which we call selfishness there is substituted an interest in the nation or a love of humanity in general? It will not remove the difficulty to show that the interest of each is at one with the interest of all. How shall any one find strenuous effort to be for his own interest?

Will man work without self-interest?

In America, for example, if he is able to persuade himself to work twice as hard and to produce twice as much, his own share will be increased thereby by one seventy-millionth. Brother-love will not stand this strain.

The difficulty with the socialistic scheme of things is that it does not take full account of man as he is. Nothing will take the place of interest in self or family as a motive for effort; neither fear nor love of society in general nor any mixture of fear and love will stand the test. Slavery shows the insufficiency of fear; the experience of the Pilgrims and of the early Virginia colonists illustrates the ineffectiveness of the motive of indirect self-interest.

Roscher puts the case forcibly as follows: —

> When Louis Blanc and Mably rely upon the sentiment of honour instead of personal interest as the spur of production and the rein of consumption, and in respect to effectiveness instance the army code of honour, they forget, among other things, the thirty cases of capital punishment provided in the military code. . . . Were all burdens and pleasures of life equally distributed under strict communism, and distributed equally, in line with the concepts of the masses, men like Thaer, Arkwright, and others, who now in library and laboratory produce food for hundreds of thousands, would produce with mattock and shovel, at the highest, enough for three or

four men only. . . . General and equal popular education as the communists demand it would practically work out at this merely — that no one would attain to the higher scientific development. . . . "In place of the current competition to produce the most and the best possible, there would come about under socialism a competition as to who could produce least and worst." . . . When the first Virginia settlers in 1611 abandoned the system of communistic labour and joint-stock methods, it came about immediately that in one day there was as much accomplished as before in a week, three labourers producing as much as thirty did before. Even in New England, among strong men accustomed to labour, who had made so great sacrifices in the interest of their faith, communism was attended with continual famine; this changed only in 1623, when private property was established. — ROSCHER, translated from *System der Volkswirtschaft*, Book II.

CHAPTER XIII

POPULATION, RENT, AND SOCIALISM

116. Socialists and other critics of the competitive system assert that the outlook of society as at present organized is hopeless — that adopting the reasoning of the current political economy the lot of the race must become increasingly hard. It is somehow inferred that the fault is rather with the present social system than with the theories upon which the conclusions rest, or than with the fixed facts of the world in which we live. In fact the socialists instead of quarrelling with many of the established economic theories assume the correctness of them — including some which have been abandoned. At the same time they have perfect confidence that the human environment is sufficient for a happy human destiny, and that in fact the ultimate destiny of the race will be a happy one. Therefore they reason that if the current economic doctrines point to dismal conditions in

Is every uncomfortable doctrine false?

the future, the fault must lie in the social system.

But there are two assumptions here, neither of which is free from doubt: (1) the correctness of the current economic dogmas; (2) the possibility of a generously prosperous life for the race with the environment as it exists.

We must therefore determine how much of truth is contained in these assumptions. In what measure is the human outlook a hopeful one? Of what value are our economic doctrines for purposes of prophecy? Are there any tendencies in human life which need render the student despondent of the future?

117. When the pioneer enters upon a new continent, with its wealth of new resources, its expanse of unexhausted lands, its store of uncared-for fruits, its teeming animal life for sport and food, he may well hope for himself a life of ease and plenty. Nature appears to be generous far beyond his needs. The wide ranges of land do not, it is true, offer unlimited opportunities and bounties, but in comparison with his necessities the supply far outruns the need.

Diminishing returns again.

And yet in truth the life of the pioneer is a long way removed from ease and lack of care.

Food is easily obtained, but only for a part of the year. Harvesting and storage are to be provided for; shelter must be had, clothing must be fashioned. Even if the chase could satisfy the need for food and raiment, as for civilized man it never can, there will remain the need of hunting appliances and of powder and ball. No man is sufficient for his own necessities in any adequate measure. Fortunately for humanity, men are in great measure dependent upon each other. We must live among our fellows or we must suffer. Too sparsely inhabited countries are never prosperous. The planting of a colony is a difficult and hazardous undertaking, as the early history of America testifies.

Yet it is true that new countries do commonly offer favorable conditions as far as food and raw materials are concerned. The insufficiency is in the products of machines and mines and factories — in the commodities which depend for their production largely upon human association.

But as the new continent becomes more thickly populated, the advantages of cheap food tend to disappear. The gathering of wild products gives place to cultivation; stock-farming

is substituted for the chase. Pastures must be fenced; winter food must be provided for the stock. Land is no longer to be had for the taking; rents are charged.

We are again face to face with the old fact, or, as we call it, the old law of diminishing returns. After a certain early stage is passed, it becomes more and more difficult, as population grows more and more dense, to obtain a living from the land. Rent is, indeed, as we have already seen, the index of increasing resistance to the increase of agricultural products — the measure of the extent to which cultivation has been pushed to lands of lower productive capacity.

In view of the fact that the population of the world is rapidly increasing, this law of diminishing returns has been shown to have disquieting implications. Recalling also the tendency, manifested by all forms of life lower than the human, to multiply as far as food, enemies, and climate will permit, we come in view of the evidence from which Malthus inferred that the human race tends strongly to over-population. If over-population is inevitable, it seems likewise inevitable that the human race must one day meet the barrier of starvation.

Malthus' dismal forecast is to be questioned, if at all, not on the doctrine that over-population means poverty — for this is not open to question — but on the doctrine that over-population is in fact inevitable.

118. Some short discussion has been had (Sections 74–78) of the degree in which the Malthusian forecast demands acceptance; now note what use the socialist makes of the Malthusian doctrine. He attempts no condemnation of the economists generally, as if they were to be held responsible for the facts which they declare. All men must know, even though some seem sometimes to forget, that the economists have not fixed and established the grain-bearing capacity of the fields. The messenger who brings bad news does not deserve to be choked therefor, nor is the doctor to be hated because of his unfavorable diagnosis; even an undertaker may be a kind-hearted, worthy citizen. Instead of condemning the economists, the socialist condemns the present industrial system. This, however, is not much more reasonable. The present economic order is likewise not responsible for the nature of the land or for the facts of agri-

Is Malthus to be condemned, or the economists, or the competitive system, or the facts?

culture, nor would changing the system alter the facts. Under socialism, as well as under the present system, twenty men cultivating one acre of land would find it exceedingly difficult to make a living.

If the socialist regards the outcome of overpopulation as a serious one under the present social system, there is still no use in changing to socialism unless socialism would somehow help the case. Children now and then get angry and break things out of petulant impatience. But this is childish. It is best never to take medicine unless one knows what it is for, and what effect is likely to come of it. Where, as under socialism, the community as a whole takes the burden of seeing every family well provided for, the tendencies toward overpopulation would probably not be less, and the land would be no better.[1]

The law of diminishing returns is a mere fact with which every farmer shows himself familiar in failing to reduce his field from twenty acres to one and to apply all his labor and fertilizers upon that one acre. Neither the human race nor the social system can remedy this agricultural

[1] One ought in fairness to add that there are socialists who maintain that a socialized community can control the growth of population as an individualistic community never can.

fact, nor is any economic theory or theorist to be charged with responsibility for it. The human race is not able to make its environment to its liking. Over-population may be far off; better knowledge of chemistry in its application to farming, better choice of products, or better varieties of products, or even the cultivation of products now unknown, may for a long time hold in check the harsh pressure of want. But population cannot endlessly multiply, without at some point meeting with resistance in lessened supplies of food products and of the raw materials of industry.

119. But while the human environment lacks in adaptability, there is (as we saw in Section 6) a large measure of adaptability in man. In science, in art, in processes, and in appliances, progress is continuous. A pioneer population as it increases in numbers finds that new methods of production become possible. Division of labor, which means the specialization of employments, becomes practicable. With a large market, economies in production become possible. With still larger markets the use of machinery is practicable. With increasing population improved methods of transportation become

Increasing returns again.

profitable, and manufacturing centres are established to buy and sell over a wide territory. The economies of the great factory system follow — the use of expensive machinery, the advantages of great steam- or water-powers, the gains of scientific oversight, and of salaried designing and inventing. Thus, with increasing population and widening markets the field of opportunity enlarges for invention and improvement. There was no room for great factories with their machinery and complicated processes, until, with increasing population, human ingenuity had placed at man's disposal the modern methods of transportation. It is true that cause and effect are hard to distinguish here. There is a complex interplay and reaction, all things moving forward by the aid of each and for the aid of all.

But all this progress in invention, transportation, and trade is human progress. It belongs to the economic factor, man. There is then a law of increasing returns for the human side of the case as well as a law of diminishing returns for the environment. It is possibly true — indeed it is probable — that the advantages of division of labor and of larger factory plants are even now approaching the limit of

increase. But the advance of mankind in science, art, skill, processes, methods, tastes, and desires, is not subject to limitation. On this side there is really a law of increasing returns.

So, even if it grows more difficult to obtain the necessary supply of raw materials from the earth, there may be, we repeat, at the same time an increasing share of productive energy which can be applied for this purpose. The human race will not necessarily be the worse off in the end.

It is, then, evident that too much may be inferred in the way of evil forecast from the tendencies known as the Ricardian Law of Rent and the Malthusian Law of Population. At any rate, to call these tendencies laws does not make them subject to repeal through socialism, or justify condemnation of the present economic system as if it had enacted them.

Remember, however, that to reject socialism as a general remedy for all social ills is not to deny that there are real evils in modern society. It is merely to assert that these evils must be considered and treated as distinct problems rather than as one great problem awaiting one sweeping solution. The social question is in truth a cluster of questions.

SUGGESTIVE QUESTIONS

How would socialism affect inventions, new processes, the progress of science?

What effect on literature, history, poetry, philosophy, etc.?

On the per capita production of the mere necessities of life?

Are there immaterial goods? Give illustrations.

Suppose several men to have worked together in digging a ditch: when the pay is to be divided should the shares be equal? Or according to the size of families? Or according to efforts? Or to character? Or to number of feet dug?

Distinguish between justice and charity.

CHAPTER XIV

SOME CURRENT QUESTIONS IN ECONOMICS

SPECULATION

120. We saw in Section 31 that desires grow less intense with partial satisfaction. One does not become thirstier the more he drinks, or hungrier the more he eats. It is possible, though it is not common, to have a good thing in superfluity. There may be more food upon the table than is wanted for that meal. So it is within possibility that there should be more food in the world than is wanted by the people of the world. With pioneers in a new country, and especially in a tropical country, food supplies often exceed the necessities; the market is glutted, so to speak. And we have seen that as men become more numerous the bounties of nature become insufficient, so that men must work in order to satisfy their wants. When things are brought to market

Desires are not infinite in any particular direction.

for sale, prices, as we know, must go low enough so that the demand will absorb the entire supply. It quite often happens in the cities that ripe fruits are sold at almost nothing. The reason for this is plain, when we reflect that there is not an unlimited demand for bananas or strawberries. At no matter how low a price, you would not at one time buy very many dozens of bananas. We are again in face of the fact that value cannot exist in the absence of some measure of scarcity. Unlimited abundance would mean the absence of value. Thus value is not to be taken as the measure of well-being. Utility, and not value, points directly to usefulness. Value indicates some limitation upon utility by reason of scarcity. (See Section 38.)

121. It is very important that the things we most need, like food and coal, should be cheap.

Things acutely needed we get easily.

The human race can get along well enough with great scarcity and high value in diamonds. Those things which the human race greatly needs are commonly easy to get, else there would be no human race. In fact, the things which we most acutely need — space and air and water — we mostly get for nothing, the supply of them being so great.

If the springs should dry up, drinking-water might acquire value, as it does, in fact, on the desert or in the cities. If the rains refused to fall, we should have to replace them by irrigation ditches; but this would be no cause for gladness. Gas and lamps in place of sunlight would be more trouble to no better results.

122. With many things — with food products especially — the consuming capacity of the world cannot be greatly increased. On the other hand, it is not possible largely to reduce consumption without great suffering. We say of such cases that the demand is inelastic. With many commodities, however, a very large increase in supply can be marketed with a relatively small reduction in price, while if the price should greatly advance, a large part of the demand would be withdrawn. Books, pleasure trips, sewing machines, and bicycles, are good examples of this second class. In these cases we say that the demand is elastic. Where the demand is elastic, the supply may increase much more rapidly than the price falls; so a decrease in supply would not greatly raise the price. But with food products prices rise out of pro-

Is the food demand elastic?

portion to the decrease in supply, and fall out of proportion to the increase.

123. This explains much that is peculiar in the movements of rents. As population increases, the poorer lands must be cultivated; going without the products is not practicable. So a small increase in supply from the opening up of good lands or from improvements in agricultural methods will make possible the abandonment of poor land at the margin of cultivation.

Elasticity and rents.

124. This question of elasticity of demand being well understood, we are in position to see how with food products it comes about, not only that prices are high with a short crop — for this is not strange — but that the aggregate selling price of the crop is higher for a short than for an abundant crop.

Elasticity and prices.

This fact is stated by the English economist Thorold Rogers, in the following words: —

"There is one law of prices which you must know and understand before you can make the least progress in interpreting the simplest problem. It is known to some economists, I do not say all, for it is most unaccountably neglected or obscured in most treatises on the subject, as Gregory King's Law. We take it a defect in the harvest may raise the price of corn in the following proportions:

Defect.	Above the common rate.
One-tenth raises the price	Three-tenths.
Two-tenths raises the price	Eight-tenths.
Three-tenths raises the price	Sixteen-tenths.
Four-tenths raises the price	Twenty-eight tenths.
Five-tenths raises the price	Forty-five tenths.

The price of any article in demand but at present in defect rises in price by a different ratio from that indicated from the ascertained amount of the deficiency; the price of any article in demand but at present in excess, falls in price by a different ratio from that indicated from the ascertained amount of the over-supply. The operation of the above law is always most dominant in articles of prime necessity, in which no notable economy can be made without suffering on the part of the people when supply is short, and no notable increase of consumption can be expected when the quantity is in excess of supply. If the article is relatively perishable, the phenomena increase in intensity on either side."

We may remark that, as applied to any one cereal product, the figures above given are probably an over-statement. As applied to the total of agricultural products, the error is probably in the other direction.

125. Bearing in mind that food production is, in large measure, periodic with the seasons, we are now in position to understand why price fluctuations are especially characteristic of food products, and why speculation especially busies

Elasticity and speculation. Is speculation an evil?

itself with these. It is easy to denounce the speculator for trafficking in the necessaries of life, and for profiting at the expense of society; but it is as cheap and shallow as it is easy. We need attempt no justification of the motives of the speculator — they are probably bad enough; but fortunately there are many cases in this world where men, seeking only their own well-being, bring about the well-being of others. The speculator does not commonly cause the rise in prices, but merely brings it earlier than it would otherwise come. If the supply of food is short, prices will have to rise. It is well that there are men who make it their business to study the crops and the harvests, and who give early notice of a coming scarcity, thereby encouraging society to economize its supplies, and compelling it to do so by forcing prices up. Thus in times of seeming plenty, supplies are set aside for times of later need — "a service which has been well compared, by Archbishop Whately, to that rendered by the captain of a ship, who, taking account of the stock of provisions at his disposal, and the length of his intended voyage, adjusts to these conditions the rations of his crew" (J. E. Cairnes).

126. The advantages of speculation to the

producer are equally evident. But the farmer is prone to believe that the profits are made at his expense; he sees speculators, who own not one pound or bushel of product, selling for future delivery vast quantities, say of wheat, to buyers who have neither the ability nor the intention ever to receive the goods. Instead of actual delivery of the goods at the date agreed upon, the operators fix the terms of settlement by comparison of the actual market price with the stipulated price. If, for example, wheat is selling at two cents per bushel higher than the agreed price, the seller pays this two cents per bushel to the buyer and the transaction is closed; if wheat has fallen, the seller wins.

Does the producer suffer?

It strikes the farmer that this enormous selling of wheat which does not exist must hammer down the price. But for every selling there is a buying. If the consumer should turn his attention to the case, he would be equally justified in concluding that all this speculative buying must greatly enhance the price. In truth, these purely fictitious buyings and sellings are in the long run of small importance or of no importance to producers and consumers, except as a part of the process by which

prices are fixed. But the buyers who actually take and store the product till the time of consumption draws near, perform a great service to both buyer and seller. If the farmer had to sell his product in the fall at a price at which ultimate consumers would consent to purchase their year's supply, he would receive a convincing object lesson of the advantage to him of this speculative buying. Housekeepers will not buy a year's supply of flour in advance, unless at a very great saving. Many of them, in fact, could not buy if they would.

Corners are evil.

127. It is only when the so-called corner is brought about that speculation deserves the condemnation which it receives. The motives and methods of the speculators are, of course, quite another question. In its ordinary working, speculation increases the total usefulness of commodities by postponing their consumption to the time of greatest need. The effect of the corner exactly reverses this process. If the supply can be monopolized, the aggregate selling price may be increased. Utility is sacrificed to raise values. (See Section 38.) The postponement of the consumption is at the expense of current consumption. An immediate scarcity is fol-

lowed by a corresponding excess. It is true that the speculator must, after the corner, sell at low prices some share of the supply which was taken from the market. But this falls far short of cancelling his profits; he could perhaps even have afforded to destroy it.

But in order to enjoy the profit from an increased price, the speculators must have purchased practically the whole of the market supply. This is a difficult matter and requires a vast amount of capital, even where the volume of the commodity to be cornered is not large. The fact that many men, who have no share of the supply on hand, offer to sell products and agree to deliver them, greatly increases the difficulty. These offers are in one sense mere bets upon the course of the market, but as long as the offerer is responsible the offer must be accepted, else it has the same effect to defeat the corner as if it represented actual commodity. No corner can force prices up except by frightening these offers out of the market, or by accepting them. When now the corner has succeeded, not only does it make the profit upon the supply which it has to sell, but also an oftentimes enormous profit from the people who have agreed to deliver and are not able to fulfil.

COMBINATIONS AND MONOPOLIES

128. The theory of monopoly should now occasion little difficulty. It is easy to understand how it is often better to sell a little at a large profit per piece, than more at a smaller profit. As long as the monopoly controls the supply, it can fix the price at the point where the profit is greatest. It is better, for example, to sell 500 at three cents profit each than 1000 at one cent profit each. Of course the monopoly has to keep in view the danger of arousing competition, and the necessity of fighting it if it comes. Thus it commonly is true that the monopoly prices are kept somewhat below mark of maximum profit for the immediate time, and occasionally go very low, often much below cost, in order to discourage or ruin competitors.

Monopolies are probably, on the whole, injurious to society because of their habit of sacrificing utility to value; that is to say, they force up the selling price by creating scarcity, — they increase the sacrifices while at the same time diminishing the consumption, — they subtract from utility to add to value. (See Section 38.)

TRADES-UNIONS

129. The antagonism between utility and value helps in the explanation of trades-unions. Evidently if the number of producers in any given line can be artificially restricted, the product will be limited, the prices high, and the possible wages correspondingly high. The union, if it can control the labor supply, can exact from the employer all the wages which he can afford to pay. The effects may or may not, in the price of products, extend to consumers. It is in the effect on laborers seeking a place of employment in the ranks of skilled labor that the effects of the unions are chiefly to be regretted. In this respect their methods are open to the same criticism as are those of other monopolies. The attitude of many trades-unions toward apprentices is a leading instance. The well-being of society demands the maximum of intelligence among the laborers and, unless greater advantages in other directions are sacrificed, the maximum of product. The exclusion of laborers from employment of any sort, or the restriction of them to the unskilled industries, strikes at social well-being through a diminution of the social prod-

uct, and rather increases than diminishes the inequalities of distribution.

But trades-unions are more than associations for the restriction of product: they are societies for mutual education and mutual insurance. These are praiseworthy objects, and tend to increase the efficiency and the contentedness of the laboring classes. As associations for protecting the individual laborers against injustice and oppression by employers, and for insisting upon proper conditions of sanitation and safety in shops and factories, and upon reasonable hours of labor, the unions are effective and commendable organizations.

SUGGESTIVE QUESTIONS

In what degree can the large concern outdo the smaller in economies of production?

Is this equally true of the great farm or the great store?

Ought society to get the benefit of these economies?

What are the natural limits in the growth of giant industries?

May these limits be enlarged by trusts and combinations between different plants?

How much has cut-throat competition to do with this?

In what sense do you regard the law of increasing returns as a permanent fact in industry?

How does transportation open the way to the giant industry?

What benefits can you mention from competition?

How are honest manufacturers driven to doubtful methods?

Do you think it proper for the government to enforce regulations in regard to sanitation? Child labor? Adulteration? Length of work day?

Under our form of government would this fall to the separate states or to the general government?

What bearing have protective tariffs on the ease of combination?

What is the harm in combination?

Could anything be done by taxation to obtain for society the benefit of cheaper processes, or to protect society from artificially high prices?

How about the justice of the thing?

Is it a moral wrong to attempt to wreck another's business by selling goods under cost? What should you say of an action for damages in this case?

Do you know of any instance of cut-throat competition? Who suffer? Who gain?

In case of street railways, city water works, gas works, electric light works, does the public suffer most from competition or from combination?

What do you think of city operation of these industries? City ownership and leasing? City taxation?

What effect do these industries have on city politics? What effect would come under city ownership?

What effect would national railways have on politics?

Is national ownership practicable while there is private ownership in the land? What is the connection?

Do the same considerations apply to telegraph or postal service?

To what extent do you regard railway discriminations as responsible for monopolies?

In what senses are laborers' interests parallel with employers' interests?

In what sense adverse to employers' interests?

Is the laborers' contest a contest against capital? Is it an attempt to lower rates of interest?

Can anything be done by labor unions to lower rents?

Does the contest concern wages as against interest, or wages as against profits?

In what degree are profits obtained by unfair treatment of individual workmen? By unwholesome or unsanitary conditions for work?

By labor of children and women?

By adulteration and lying?

From which of these do laborers suffer?

What can labor unions do in regard to each of these evils?

If unskilled laborers all work, what determines their wages?

What effect from a combination which should raise the wages? Could as much product be sold? Could as many men be employed? What would the out-of-works do?

Is combination among unskilled laborers likely to be effective in raising wages? In protecting members from oppression by employers?

Inquire among employers, and see whether they find the labor unions a convenience in adjusting disputes. In avoiding disputes.

Is combination among employers possible for regulating wages? Probable?

Did the Chicago railroads practise it in 1894?

Would travellers and shippers ultimately get a benefit from these lower wages?

Do strikes commonly succeed? If not, does this prove the failure of strikes to benefit the workmen?

Does the armed peace of Europe tend to prevent war?

What do you think of government ownership of railroads from the wages aspect of the case?

Can skilled labor through combination get higher wages?

Must there be methods of excluding competition?

Is this desirable?

If as many men work for as long a time, can wages be changed?

If the number of workers or the length of the day be lessened, who suffer?

THE EIGHT-HOUR DAY

130. Recalling that wages, though fixed by the adjustment of supply and demand, are determined by the productivity of labor as the source of the ability to pay wages, — that therefore wages must be drawn in the long run from product, and that competition tends to fix interest and profit at the level of marginal services, — it is clear that the effect of the eight-hour day on wages must be determined by its effect on the social dividend. All attempts to obtain high wages by making labor scarce, or its aggregate product small, rest upon sheer fallacy, unless the restriction be limited to one industry and that industry be one in which the monopoly principle may be applied. Even here, not employers, but con-

A question of product.

sumers, must finally pay the costs of the artificial rise. Employers pay wages as fixed by the selling price of their products. Shorter hours and a relatively high compensation for laborers in a given employment, would quickly recruit the ranks of wage-earners from agricultural or other laborers.

The question thus remains twofold: (1) Will the aggregate production be lessened by the change to an eight-hour day? (2) If so, is the change desirable?

131. (1) A twenty-hour working day, if it should prove physically possible, would mean weary, stupid, ineffective labor. Better results in product would be obtained with fewer hours and longer rest. In most industries it is probable that a twelve-hour day is, in the long run, and purely as a question of product, undesirable as compared with ten hours. But this shortening process may go too far. That sixteen hours is an improvement on twenty, or ten on twelve, does not conclusively recommend the eight-hour day as against the ten. Much depends upon the nature of the industry, much also upon the national characteristics of the laborers. Probably, on the average, productiveness would fall with a change to eight hours.

(2) Is this necessarily an evil? Is leisure good for anything? On what conditions? How about health and content? Morals?

THE SWEATING SYSTEM

What fixes the wages of employees in sweatshops?

Do the employers make unusually large profits or is competition probably fully active among them?

Do the merchants make large profits in the handling of goods from sweatshops, or is the margin one of close competition?

With so many dozen shirts to sell, is it possible to maintain higher prices and yet sell all the shirts? How arrange to get higher prices per shirt. What must be the effect on the laborers if only as many shirts are sold as can be sold at high prices?

What effect (1) on employers, (2) on laborers, if wages are increased without increasing the price of products?

Is the purchaser of sweatshop products doing a benefit or an injury to the employees? What if the shirts could not be sold?

132. The conditions of bad sanitation, bad water, bad food, ignorance, vice and disease, characteristic of the sweatshops, are well known. Merchants find it convenient and profitable to let the making up of fabrics to the lowest bidder. These successful bidders, the sweaters, undertake to find the necessary laborers. The work, under-

Description.

taken at starvation figures, must be placed among people compelled to work at starvation wages. The fabrics are therefore distributed for making among the ignorant and vicious, in quarters of cities foul with stench, filth, and disease. The labor is performed in garrets and cellars, or in sick-rooms among sufferers with all sort of contagious ills, where the uncompleted garment may serve as the pillow or cover of fever, cholera, or smallpox. On the counters of the great wholesale and retail establishments these sweatshop garments furnish the material for great bargain sales or attractive trade discounts.

What can be done?

The notion is held by many people that the only thing necessary to cure this great evil is for the State to prohibit letting or receiving work at these low figures. It remains, however, to ask what these ignorant and inferior workers will do if prevented from earning these small wages. Were something better open to them, it would be unnecessary to prohibit this line of employment. Or, again, it is urged that purchasers should refuse to buy garments made at starvation wages. How would these starved laborers be better off then? Unless their product

can be sold for little, it cannot be sold at all.

It may be, however, that as a measure of public health, the State should attempt supervision and regulation of the sweatshops. It is probably true that the inmates might in many cases do better-paying work if they could find it, and would often find it if they were aware in a general way of its existence, or if they were not wanting in energy and self-direction. Something is possible here through charity and education. But in any event the remedy will have to begin with the laborers. Uninformed denunciation of the system, or of the merchant, or of the intermediate employer will do little good; nor will the accompanying schemes of remedy serve. For this class of laborers the choice is between sweatshops and something worse.

LABOR OF WOMEN AND CHILDREN

133. Courts and lawyers have established the rule that in case a parent is shown to be affirmatively unfit to care for a child, a guardian may be appointed in his place. Merely as a matter of protection to the

Children.

child, it becomes justifiable, in some cases, to limit or suspend the usual authority of the parent.

The labor of children in shops or factories is injurious both positively and negatively — positively, in weakness and stunted growth from over-arduous tasks, negatively in loss of opportunity to prepare for the more important tasks of later life. These conditions of disadvantage tend to reproduce themselves. When the child-laborer matures, he in turn finds himself unable to give his children proper care and education. Thus, in justice to the unborn children as well as to the living, some sort of restriction upon child labor is desirable. If parents are unable, under present conditions, properly to prepare their children to live, there is the clearer necessity that the next generation be not worse equipped.

General considerations, therefore, favor state interference in these matters. Any rule must, however, be very flexible in application. Parents or even whole families are in some cases in considerable measure dependent upon the services of children, where state aid could not be recommended and would not be received. The self-respect which goes with independence

is a valuable quantity. Authority should exist to handle these cases after their exceptional character; otherwise the protection of children may result in tyranny for both parents and children.

134. The labor of women stands economically and socially upon other grounds. Where women's labor in shops or factories is necessary to a wholesome plane of living, it is perhaps to be regretted. But that it is to be regretted makes it not the less necessary. Especially for married women are the effects bad in lower physical tone and in neglect of important home duties. Women.

Whether in any case a woman's labor is necessary is probably best left to her own decision, or that of her family. They best know the facts and are most interested in the decision. There is small occasion for the state to interfere otherwise than, as for other laborers, to prescribe conditions of good sanitation, light, heat, and safety. These latter matters are not well left to ordinary methods of adjustment. Competition without regulation works out in this regard in higher wages for recklessness and higher profits for inhumanity.

The necessity of wage-earning by women

may well be regretted; but the active opposition to it rests upon the pernicious fallacy, already many times remarked, that the competition of women reduces the wages of men by an amount equal to the wages of the women, and possibly by more. It is assumed that wages are a fixed quantity and the social dividend inelastic, instead of depending upon the effectiveness of productive forces. If women's labor adds to the social product, it necessarily adds to the aggregate of wage receipts for wage-earners as a whole. Obviously, however, if the competition of women centres in some one or some few industries, the wage level therein may be seriously lowered, and, conceivably, the wage aggregate decreased. Value may suffer by the mere fact of abundance. Utility and value do not run parallel. (Section 38.) Wages are derived from value.

WAGES OF WOMEN

135. It is familiar that wages depend finally on the value of the product. What employers can sell their product for will determine how much the marginal employers are able to pay as wages, and how much competition will compel employers in general to pay. Thus in the

measure that women are less quick, less ingenious, less intelligent, or less versatile, their wages will suffer.

As bearing upon the question of efficiency, it must be remembered that for some employments women are distinctly inferior to men in endurance and muscular strength. In many cases, also, women do not expect to remain long enough at wage-earning fully to prepare themselves therefor or to enter into their work with the maximum of interest. But it is still true that women are not commonly paid in proportion to their productive possibilities. They could and would produce larger values, were they employed where their work is most productive. Wages in particular employments may be permanently low, if by force of public opinion or law, or by lack of aptitude for other employments, certain large classes of workers are restricted to few employments. This, taken in connection with their inferior productive energies, is the explanation of the strikingly low average wages of women. If countless women go into shirt-making, they must get, per shirt, wages corresponding to the low price at which

Are women equally valuable employees?

Relatively large supply of product means low price.

shirts must be sold in order to market the whole product. Prices for shirts fall to the measure of the marginal shirt, and wages for all shirt-makers come to be fixed at this same margin. There appears to be no remedy except to decrease the number of shirt-makers, or to find a way to induce people to buy the same number of shirts at higher prices. Higher prices, if possible, would then induce the production of still more shirts.

TARIFF, PROTECTION, FREE TRADE

Write a definition of cost of production.

What is the employer's ground for asking protection?

Why cannot he hire laborers at low wages?

If an employer refused to pay reasonable wages what would the employees do?

Does protection cause high wages or result from high wages?

Why are Australian wages higher than East Indian? Compare as to man and environment.

What fixes average wages?

Why not raise bananas in Canada?

136. It must ordinarily be best for men to follow the lines of employment for which they are best adapted. This course conduces to the maximum social dividend and to the maximum average command of

Division of labor is good.

wealth. So it is best for communities inside a nation, or for nations inside the community of nations, to direct their energies to those lines of production to which they are best suited. To prevent any nation from doing this, or to prevent any part of the people within a nation from doing this, requires some kind of special interference, or inducement, or compulsion. In any country in which the material advantages are great, or the average productive powers of the population high, the wages will be high in the average, and it will require a system of bounties or special privileges to induce any one to follow an industry of relatively low productiveness.

137. Protected industries find their cost of production to be too high, in the sense that they are unable to pay the wages which other industries pay. When the foreign competitor can hire equally good men at low figures, this means that competing industries in his country do not offer the laborers better opportunities for production than his industry can offer. Where this is true, it is evidently impossible for an industry in the country with a higher wage level to maintain itself under free competition. This does, in

What is a high cost of production?

fact, prove the necessity of protection if the industry is to exist, but it also proves that the industry ought not to exist. Why can it not pay the ruling rate of wages? Simply because other industries can pay more than it; they produce, per laborer, a greater sum of values. When we say that cost of production is high, this is exactly what we mean. The cost of any article is the displacement of other values producible by the same productive energies. A high cost of production is a high displacement. Protective tariff is usually a method of wasting energy by compelling the production of that which could better be purchased, and the abandonment of that which would better be produced. It is an attempt to thwart the international division of labor. In effect it denies the profitableness of trade. It suggests that it was a mistake to make the world so large. It forgets that wages flow from product and are limited by product, and assumes instead, that they can be increased by legislation and legal shuffling. In forgetting that wages are a result of product, it is assumed that high wages mean a higher cost of production reckoned by the piece, and low wages a low cost, when in truth cheap labor is very often found the dearest labor.

138. Protection also commonly overlooks the fact that peculiarities of environment afford special opportunities for particular lines of industry. Far-sighted business sense will work the forests and the fields, when these are excellent, to the exclusion of iron mines which are poor. Other nations will work their mines, allowing their relatively unprofitable agriculture to languish. Each people should make the most of itself and of its environment.

Protection cancels advantages of environment.

In rough outline this covers the entire tariff question, though we shall see that there is something to say for protection under peculiar conditions and as a temporary policy. But first there are some minor aspects of the question which require discussion.

139. Many people have the impression that high prices are a good thing in themselves. This opinion probably rests upon the fact that in good times prices are commonly high; it is therefore inferred that the high prices make the good times — very much as children sometimes believe that the swaying trees make the wind blow. As we have seen, however, the expanding credit of good times accounts for the higher prices.

Are high prices desirable?

To assume that high prices are in themselves a good thing is to look at the case from the point of view of the producer or seller, without thought of what he can buy with his money. There are also people who think low prices an excellent thing, because then money buys so much. These people look at the case solely from the consumers' point of view, forgetting that the first thing is to get the money to buy with. In truth, commodities cannot all be relatively high, any more than every tree of the forest can be higher than the others.

Are low prices desirable?

It is neither a good thing nor a bad thing for prices to be permanently high or low. This is purely a question of the volume of currency, relatively to the amount of commodities to be exchanged. So when the protectionist goes to work deliberately to bring about high prices generally, he is proceeding upon fallacious reasoning.

140. But he sometimes has not precisely this purpose in view. He has in mind a scheme which does in fact tend to raise prices, but this is only incidental; it is not his main purpose. He hopes to arrange things so that people shall not buy so

Is it well to sell without buying?

largely from abroad and therefore will keep their money at home. He expects to export as much as before, but to import less. His error is in failing to see that, if what was before imported is now produced at home, there will be correspondingly fewer people to produce for export. But should you suggest this difficulty to him, he would probably reply that his plan would give employment to the unemployed laborers, so that exports would not suffer. Somehow he seems to believe that a smaller proportion of unemployed laborers is to be found in protected countries than in free-trade countries. This is simply not the fact.

141. But were there anything in this argument, his scheme would nevertheless fail wofully for another reason. Imports are not paid for in money but in exports. It is only the balance that has to be paid, now to one country and now to the other, in money. So far as one nation succeeds in exporting more than it imports, there must come about an inflow of money. This strikes the protectionist as very advantageous. This importation of money is just what is desired. You may object that this will raise prices. Possibly enough so — and the protec-

Is it possible to sell without buying?

tionists will be still better satisfied to find that prices will rise. The people who like to see prices going up will be glad too. This looks like a model system; let us export some more goods and get some more money and some more rise in prices.

But there is a difficulty. As fast as domestic prices rise, it becomes more difficult to market goods abroad. And all the while, as we get the foreigners' money, their prices must tend to fall as money becomes more scarce with them. Our system of selling without buying turns out to cut off international trade altogether. In fact the money, when we have got it, is of no particular help to us unless sometime later we expect to send it abroad to buy things with. If we sell to foreigners we must buy from them. If we refuse to buy from them, and produce our own supply instead, we shall have little or nothing to sell to them; and if we had something to sell, they would be unable to buy because of lack of money, or we to sell because of surplus of money.

SOMETHING ON THE OTHER SIDE

142. What has been said against protective tariffs should not be taken to apply to all forms

of taxation upon imports. It is necessary to raise revenue for the expenses of government. Taxation in some form or other is unavoidable. So long therefore as duties are collected, not for the purpose of excluding foreign goods from our markets, but for the purpose of deriving a revenue from such goods as come in, a tariff system may afford an excellent method of taxation.

Tariffs as method of taxation.

143. But it is a mistake to suppose that by this method the foreign manufacturer or importer can be made to pay our taxes for us. This is rarely the result in any considerable degree. In truth, the importer is as likely to be a citizen of our own country as to be a foreigner. But in either case the duty paid is in larger part added to the selling price of the goods, and is finally collected from the domestic consumer.

When tariff is a tax who pays it?

144. But admitting this, there are some important advantages in this method of collecting taxes. The tax is easy of collection and the expense is not large in proportion to receipts. There is also the advantage that the taxpayer is usually unconscious of the fact that he is being taxed. This, however, is not an unmixed advantage, since by

Is tax better paid consciously or unconsciously?

the very fact that the taxpayer is not aware of his burden, he is the less interested to see that the government resources are carefully and economically expended. That there is danger of extravagance and need for watchfulness may be inferred from the course of our national expenditures in the last one hundred years. The following table shows the net ordinary expenditures of the government, excluding interest, together with the population and the per capita of expenditure: —

Year.	Population.	Expenditure.	Per Capita.
1800	5,308,483	$7,400,000	1.39
1810	7,239,881	5,300,000	.75
1820	9,638,822	13,100,000	1.36
1830	12,866,020	13,200,000	1.01
1840	17,069,452	24,100,000	1.41
1850	23,100,876	37,200,000	1.60
1860	31,443,321	60,000,000	1.91
1870	38,258,371	164,400,000	4.25
1880	50,155,783	169,090,000	3.39
1890	62,480,540	261,637,000	4.18
1892	64,000,000	321,700,000	5.04
1895	66,500,000	383,900,000	5.77

145. So long as the tariff works purely as a measure for revenue, not greatly interfering

with the course of foreign trade, and particularly so long as the tariff does not, by excluding foreign goods, necessitate the existence of industries which wastefully apply our domestic powers of production — that is to say, so long as the tariff is a tariff for revenue, and not a tariff for protection — there is little room for criticism. England has for many years collected by tariffs upon tobaccos and alcoholic drinks the larger part of its revenue. It is only when goods do not come in and therefore pay no tax that free-traders are greatly inclined to object.

When is tariff harmful?

146. And even here the free-traders do not have all the advantage in the theoretical argument. It is not true that protection fails in theory and works in practice. Just the contrary is true. For certain definite ends, and strictly limited in time, protection is tenable in theory, although it commonly, if not invariably, fails in practice. The argument for protection, based upon the desirability of stimulus to industries in their experimental stages, is not a novel one, and has long been admitted by many free-traders to be theoretically valid. The difficulties incident to providing machinery and plant for a

Is it then necessarily harmful?

new industry, to establishing sources of supply for raw materials, to operating the plant with labor at first unskilled, to organizing market connections and attracting consumers' demand, are so great that, though the industry may ultimately demonstrate its practicability and profit-earning capacity, it may also never requite the pioneers for their exceptional outlay. These original projectors have no monopoly of the possible success, but only of the probable failure. In its most important bearings the experiment is of social rather than of individual interest, and during the period of experiment society may fairly be called upon to stand behind, in some measure at least, as guarantor. On any other terms it is very possible that capable projectors will not undertake the experiment.

147. But on grounds of experience the advocates of free trade seem fairly to have turned the argument. To admit that the State may profitably interfere is far from admitting that the interference is commonly profitable. American history and European history unite in convicting the State of exceeding stupidity in selecting the experiments in which it shall co-operate, — in indicating that the unsuccessful experiment commonly

Practically and not theoretically protection fails.

fails of abandonment when abandonment is due, and that the successful experiment commonly receives greater protection in nearly the proportion that it ought to receive less, — in short, that the system inaugurated to overcome the inertia and loss incident to planting a new industry, inevitably develops by the dark ways of politics into a persistent attempt to maintain in existence an energy-wasting failure, or into grotesque solicitude for industries grown vigorously independent. But the theory stands.

NOTE. — The ordinary student enters upon the study of Political Economy under the impression that the tariff question is the main part of it. He has probably by this time come to see that the tariff makes no very large share of the subject. He ought also to be prepared to appreciate that in its purely economic aspects the tariff question is of minor practical importance. No very exhaustive examination is necessary to establish this fact.

The number of employees in the leading industries affected by protection is as follows (the figures are taken from the report of the census of 1890): —

Wool	219,132
Cotton	221,585
Silk	50,913
Dyeing and finishing	20,257
Iron mining	38,227
Iron and steel manufacture	175,506
Fuel for mining and smelting (estimated)	15,000
Total	740,620

The number of bread winners in the country is 22,756,000. If then we compute the product of these protected industries as nothing — as all waste — we shall have the national dividend reduced by $\frac{7406220}{22756000}$ or $3\frac{1}{4}$ per cent.

In fact, however, the cotton industry almost entirely, the coarser grades of wool, and the mining interests of the interior States are now independent of protection. It is a liberal estimate to regard one-half of the laborers in these industries as dependent for their present employment on tariff. Moreover, of the laborers who are really held at their present employment by the artificial adjustments of protection, not 25 per cent of the labor energy is wasted, — that is to say, the present product is fully 75 per cent of what the labor could be made to produce under free competitive conditions.

$\frac{1}{2}$ of $\frac{1}{4}$ of $3\frac{1}{4}$ per cent $= \frac{2}{5}$ (.406) of 1 per cent.

Estimating the average per capita income at two dollars per day, free trade in these leading industries would carry this income to something short of 2.01 (in purchasing power).

SUGGESTIVE QUESTIONS

What effect does the tariff system have on the use of money in elections?

On the bribery of representatives?

On the wholesome character of popular thought as to the sphere of government?

On the purity of politics generally?

CHAPTER XV

TAXATION

The right of taxation has been called the essential fact of sovereignty. Why?

What was the main difficulty with the Articles of Confederation?

What is the usual cause for revolution? How was it in American history?

Where does the food come from which the judge and sheriff eat? The wool that they wear? Who pay for these ultimately?

In what sense are all taxes taxes on consumption?

What is a tax — not in terms of money but in terms of labor or product?

Why ought a good citizen to be willing to pay taxes? Does he get his money's worth? More? Is it a good investment?

Do you think even a poor government better than none? Mention the different ways in which the expenses of government return to us in services.

Discuss as to each of these suggested ways whether the rich man is more benefited than the poor man.

Ought the rich to pay more taxes than the poor? Why?

Should taxes be proportioned to wealth? Suppose A's wealth to be in a picture gallery; B's in unoccupied town lots; C's in a livery stable; D's in mortgages; E's in fac-

tories; F's in tenement houses: should taxation apply to all proportionately?

Ought taxes to be proportioned to income?

Should it matter that one has ten children to educate while another has none, or that one spends his income in charity and another in luxury or vice?

Should taxes rest especially on luxuries and vices?

Should taxes bear on that portion of one's income which goes into living expenses rather than on that which goes into savings and factories, or *vice versa?*

Do you regard abilities or benefits as the proper basis of taxation?

Who ultimately pays the taxes on a stock of goods? On imports? On factories? On machines? On mortgages? On wages? Incomes? Land rents?

Which is the better method, direct or indirect taxation? Mention different considerations.

Should churches be taxed? Schools?

What moral right has society to compel the unwilling to contribute?

By what sort of taxes does the city get its revenue? The State? The nation?

Do you approve of inheritance taxes?

Should litigants pay all the expenses of court proceedings?

148. Almost all of the mistakes of government in modern days are questions of the miscollection or the misapplication of public money. The point at which government and the people come vitally and seriously in contact is on this question of what it all costs. The tyranny of

Taxation is the essential fact in modern government.

military despots with the violence of armed hirelings, has mostly given place to the regular processes of law and custom. If the State now collected its money well and spent it wisely, there would be little occasion to ask more of it.[1] This power to tax is the central fact in government, its source of life, its chief power for ill or good. If governments would but pay their own expenses they might do almost anything they pleased. The citizen is rarely sensitive or interested or watchful or angry except as public questions are somehow tax questions. The State would be an empty abstraction, as harmless as useless, if it could raise no money. Taxes are its breath and life. When, under the Articles of Confederation, it was attempted to create a government without the power to tax, the result was a pitiful failure.

Government is compulsory co-operation.

The State is a great system of compulsory co-operation. Some people who dislike compulsion go as far as to deny the right of compelling people

[1] The writer has not in mind to attempt any discussion or limitation of the proper functions of the State, but merely to indicate the feeling and attitude of the public as a whole and of the taxpayer in particular toward the actual administration of public affairs. Whether, as matter of broad policy or theory, the limits of State activity should be widened or narrowed is a question which the writer does not intend in this place either to ask or to answer.

to support the government. These are the anarchists. It is a sufficient answer to them to say that the right to tax and the right to exist are one. Society cannot get along without government or government without taxes.

149. But the fact that the revenues of the State are obtained by compulsion should perhaps have some weight in deciding what use we should make of them. If the taking is justified by the necessity, it is not far-fetched to say that the government should take and spend only where necessity exists. A voluntary organization like a club may do some things with its dues which the State in good conscience ought not to do with the taxes.

What of it?

150. Many people fail to see that whatever the government spends must be procured at the expense of somebody. In an indistinct and hazy way the idea is abroad that the government has some Aladdin's lamp or miracle-box by the aid of which, behind the curtain, it can mysteriously create wealth. It would perhaps be well for us if this hocus-pocus method were really possible, but it is bad to believe in it, and have it tried, when it really will not work. Some one must pay for

Taxes come out of somebody.

all reckless attempts at wealth-creating and wealth-wasting.

151. This is another case where the use of money obscures the real facts. The mere passing of money from hand to hand is not important. The wastes of kings and princes, with their armies of retainers and their parades and their wars, do no good in making money circulate, but dissipate the labor-energy of the armies, and destroy vast supplies of food, clothing, equipment, and stores. In parallel wise, the spendthrift, or idler, or parasite is a public pest.

Whatever is destroyed is so much less to consume.

Thefts from the public treasury by shifty politicians, fat profits on contracts, the army of hangers-on, loafers, heelers, and ward politicians thrive not by miracles of wealth-making, but by the hard toil of the taxpayers. It is equally true that the judge, the policeman, the fireman, the legislator, the State and county officials, though all render good service for their salaries and are worthy of their hire, live from what is taken from the living of the taxpayers. The flour which the official eats will never make bread for the contributor; what cloth the judge and sheriff wear out is so much less to clothe the rest of us; the brick and

mortar in the public buildings will never build into a house for you or me. Even a poor government is better than none; taxes are the most profitable part of every man's investment; officials must be had and paid, and if good must be adequately paid; but governments cost — and the poorest often cost the most.

152. The question still remains as to how to collect the funds which the State must have. Should the tax be levied per capita, or should it be proportioned to wealth, or to income, or to expenditure? If upon property or wealth, upon what kinds? Should the home, the church, and the factory be equally subject to taxation?

How impose the tax?

It is impossible to make general rules which shall fit peculiar and special cases. It is manifestly an inequality of burden to tax the father of a large family equally with a bachelor, simply because the two men are equally wealthy. The one may readily spare much, while the needs of the other may press him hard. The man who rears and educates a large family is by this very fact a heavy contributor to society. It is not ideal that the wealth, the income of which goes to works of charity and philanthropy, should be taxed equally with that which

serves for the maintenance of extravagance and vice. Schools and churches also render public service under other forms than money. We shall, however, find in later sections a method by which most of these inequalities may be adjusted.

153. (1) As a practical matter, it is evident that the subjects of taxation and the methods selected should involve a moderate cost of collection in proportion to the revenues obtained. Practical rules.

(2) As little opportunity as possible should be given for shrewdness or dishonesty to avoid the tax. This rule applies with especial force to some forms of income taxation, to taxes levied upon inventories made by the taxpayer, and to *ad valorem* taxes upon imports (duties levied by percentage on value).

(3) Taxes should be levied, as far as possible, so that they may not shift. A tax is said to shift when the person who seems to pay the tax does not in reality pay it, but shoulders it off on some one else. For example, there used to be a stamp tax on each bunch of matches, as there is now on every box of cigars. The manufacturer advanced the tax in cash to the government, but later, under the form of sell-

ing price, shifted the tax for the most part upon the consumer. Legislators often blunder in attempting to tax one class of people, and in reality taxing another. This rule against shifting is the most difficult of application in the entire subject of taxation. It is evident that a tax on production will in some measure — and generally for the most part, though rarely entirely — be paid by consumers. Taxes on interest are in some small part paid by the borrowers, but mostly by the consumers of the commodities supplied through the aid of the borrowed capital. Likewise taxes on any form of capital rest chiefly upon consumers, since taxes of this sort work like taxes upon production.

These cases illustrate the most important principle in the theory of taxation — that any tax which modifies the market price of products will, in some measure, shift. Only those taxes which, not disturbing the relations of demand and supply, fail to produce any effect upon market prices, are safe to remain where placed.

Do taxes on consumption shift?

154. Taxes levied directly upon consumption, or in proportion to consumption, are sometimes of the non-shifting and sometimes of the shifting class.

In fact, as we have already seen, all taxes are ultimately taxes on consumption, since taxation is in substance the transfer of the right to consume; but taxation may be laid upon the whole income spent for consumption or upon particular articles consumed. Where the tax is levied in proportion to the entire income, there is no way for it to shift; but if laid upon particular commodities, the consumption of these commodities is in some measure discouraged and the demand restricted. Values are disturbed through disturbance of demand and supply, and some measure of shifting becomes inevitable. For the most part the consumer — but commonly in some measure the producer also — will be compelled to bear the tax. Taxation upon monopolies does not shift, since the monopoly has already fixed upon the most profitable market price, and the imposition of the tax would therefore have no effect to modify the price.

155. Taxes on rents, or quasi-rents of any sort, do not shift, since they affect neither the demand nor the supply of products. The best illustration of this principle, and the most important application, is found in taxes upon land rents.

Do taxes on rents and quasi-rents shift?

Land at the margin of cultivation pays no rent, or at all events, an inconsiderable rent. The selling price of agricultural products — if produced at all on marginal land — is approximately the cost of production on this marginal land. Therefore to tax rents would drive no land from cultivation, would attract no land for cultivation, and would modify in no measure the demand for products or the supply of them or the price of them. It is largely upon this reasoning that the taxation of land rents has been urged by different economists, among whom Henry George is perhaps the best known. It is argued that the value of land results mostly from the growth of population and from the progress of society, in railroads, schools, social privileges, markets, etc. It is denied that the owners or cultivators of land have done or can do much to enhance the value of their respective holdings. It is granted — indeed it is urged — that so far as the increase in value is due to improvements on the land, as, for example, buildings, or clearing, or drainage, taxation is not desirable, but it is asserted that the *unearned* increase — the share of its value not due to the owner or his predecessors — should be appropriated by society through taxa-

tion. Under this system the State would not become landlord — ownership would be preserved to individuals — but taxation would absorb for the State the larger part of the revenue of ownership. It goes without saying that as taxation lowered the owner's revenue, the market value of the land would proportionally fall.

This does not strike one as fair or honest with regard to the present values of land. No matter what their origin may have been, investments in land now represent savings from all forms of human effort. Society would possibly have done well in reserving these values to itself, had it started early enough. It would probably now do well, if it is practicable, to take steps to secure to itself any future increases in land values, and particularly the increases which take place in urban lands (city lots); but wholesale appropriation of accrued values is wholesale robbery.

156. It has been shown that taxes on interest mostly shift to borrowers or to consumers. By virtue of this shifting process, taxes of this sort often result in extreme injustice. Commonly, indeed, the very people are burdened who are

Taxes on interest, mortgages, investments, etc.

intended to be favored. A possessor of five thousand dollars of property, owing four thousand dollars, is worth, in fact, but one thousand dollars, and yet may have to pay taxes not only upon his five thousand dollars worth of property, but to some extent, by way of increased interest, upon the indebtedness against it. Recalling to mind that for every debit there is a credit, and that cancellation of this credit relationship would work no change in the aggregate of social wealth, taxation upon interest is seen to be in effect double taxation upon wealth, since it is taxed once in the general wealth and again in the credit system.

157. Taxation proportioned to the benefits derived from government would in great part exempt the very people best able to pay — those best able to dispense with the aid or protection of the State. The millionnaire is not benefited a thousandfold more than the humble householder. The pauper is greatly benefited and yet pays nothing. Taxation necessarily avoids the very poor, else that which is taken under the form of tax must be returned as public charity.

Should tax follow benefits or ability?

Taxation according to ability to pay would require careful examination of the properties

owned, whether income paying or otherwise, and would require careful account of the family and social obligations recognized and fulfilled by the contributor. As we have already seen, the father of a large family does not stand, for this purpose, on a level with the bachelor.

158. And yet, on the whole, the collection of taxes according to ability to bear the tax, recommends itself as the best approximation to fairness and practicability. Burdens are thereby proportioned to strength. Upon this line of reasoning the income tax is commonly regarded as the ideal tax, to the extent that it can be made practicable in operation. A progressively higher rate of taxation is commonly advised with increasing income. Here, again, the difficulty presents itself of making allowances for the different uses to which incomes are put.

Income tax is an ability tax.

Proceeding, however, upon the basis of income — of taxation according to ability — a rational and practicable system is within reach.

Let it be recalled that all taxes are, in ultimate incidence, taxes on consumption (Section 151), that no one gets any benefit of his wealth — otherwise than in the mere power and

pride of possession — till he comes to use it. If, now, all taxes were drawn from that portion of income which goes to the consumption of the contributor, no philanthropist would stand under penalty for his charities. There is no occasion to tax savings as long as they are represented by factories or until they are turned by the owner to his own benefit. Seed at the time of planting is best exempt; wait for the harvest. If the owner of wealth is taxed prior to the time of consumption, he is taxed for that which has not yet served him and may never come to service. This tax, also, is certain, in some measure, to shift.

159. Incomes then should be taxed not by the measure of receipts, but by the measure of expenditure — not by income but by outgo. This principle has been put in successful operation by the French. The dangers of perjury, the premiums upon dishonesty, and the general impracticability which have attended all attempts at income taxation in America, as well as the injustices and the shifting which mark income taxation when proportioned to receipts, are all avoided by adjusting the tax levy in accordance with outside indications of expenditure, for ex-

Outgo tax is ideal tax.

ample, upon the rental value of the home, the amount of furniture, the number of servants and of horses. Undoubtedly the system requires skill in the selection of leading facts and in the apportionment of their relative weight, but amounts in effect to a tax on that portion of income expended for personal uses.

Clearly, however, this system is not ideal if no allowance is made for the exemption of incomes at or below the strict requirements of life, or if no provision is made for progressive burdens upon larger expenditures. With these modifications provided for, this form of income tax burdens the wealthy in proportion to their ability to bear the burden. Nor is it to be condemned on this ground as unjust, in view of the fact that society as a whole furnishes the organization and the civilization in which alone great wealth becomes possible.

160. If, however, the rich are to be taxed in the measure of their capacity, so should the poor. Whatever is spent for vice or luxury in any stratum of society, is by that fact proved not indispensable. Here is an opportunity to tax the poor to their benefit, or at all events, to no great injury or burden. Here is the theoretical and

Outgo tax on the poor according to ability.

practical justification for exceptionally high taxes levied in England and America on alcoholic drinks and tobacco. All of these taxes may be avoided by abstention from consumption. Should taxation of this sort seem to savor too much of paternalism and sumptuary legislation — if it is objected that there is too great room here for mistaken, or extreme measures — the answer is that the State must follow what light it has. Taxes must be collected; they fall of necessity upon one sort of consumption or another; the State is in duty bound to collect its revenues with as little harm as possible.

161. Succession or inheritance taxes have been much discussed of late years. Upon the death of a rich man his property passes to those who have not earned it, whose usefulness in society is not certain to be increased by the receipt of it, and whose claim to it as against society is not entirely clear, in view of the fact that society has had a much larger share than they in the creation of it. It is an added advantage that the tax is not felt as a great burden by those whose gains come to them as pure good fortune. There is, of course, danger that the tax be placed so high

Inheritance taxes.

as to stimulate evasion by gifts before death. Partly in view of this, it is generally advised to fix the rate low for cases where the property goes to wives or children, and higher as the amount is greater or as the property goes to more distant relatives.

This method of taxation would be productive of large revenues and appears to have many advantages. It is, however, by many thinkers vigorously condemned (1) as weakening the motives for saving; (2) as interfering with the owner's right to do as he will with his own; (3) as partaking of class legislation or of socialistic tendencies.

162. Under our form of government, income taxes should probably be collected by the national government, as should also taxes on alcoholic drinks and tobacco, as far as they are levied under the form of tariff or of taxes on production. Inheritance and land taxation, and all forms of taxation upon consumption by license methods, are probably best placed with State and local governments.

It is worth noting, as a matter of experience, that taxation upon personal property, as administered in America, is impracticable, consistently with justice, and commonly fails, for

the most part, of enforcement. In almost all communities, and especially in the newer communities, land taxation affords nearly the entire revenue. Unfortunately, however, no distinction is made between land and improvements.

SUGGESTIVE QUESTIONS

Compare the tax bill with that of the grocer.

Ought the right to vote to depend in any way upon property or to be influenced by it?

How does taxation differ from robbery?

Why do anarchists object to taxation?

What was Rousseau's theory of the social contract?

Ought public funds to be used for Fourth of July celebrations?

What is a poll tax?

Are taxes better direct or indirect?

Is it wise to assist private educational institutions with public funds?

Suppose A has $100,000 all invested in real estate mortgages, upon how much is he taxed?

Can he shift this, in part, upon some one else?

Suppose he himself owes $10,000 to the bank; will this be deducted from the amount upon which he is taxed? Ought it?

Suppose you own a farm worth $5000 and owe A $4000 toward the purchase price; what is your net wealth? On how much do you pay taxes, — $1000, $5000, $8000, or $9000?

Are all who are taxed citizens? Ought all to be?

Are criminal courts of service to those who never have litigation? How about civil courts?

What harm in taxing the grain which makes the flour? Why better tax the flour?

Is tariff taxation sufficiently near to the point of consumption? Is it economical of collection?

Does it place unusual premiums on dishonesty?

Does it bear in desirable proportions upon rich and poor?

On what classes does taxation on whiskey or tobacco fall?

Is this better than an income tax?

On what classes does the income tax mostly fall?

What do you say of the expediency of limiting taxation to two forms, — an income tax for the rich, a luxury and vice tax for both rich and poor?

Would you add to this a land tax, or, more properly, a rent tax?

Is an income tax best levied on the basis of income received or of income expended?

The French assess their income tax on the basis of a few leading indications of the expenses of living, — rental value of house, amount of furniture, number of servants, etc.; what do you say of this?

Is it true that "tariff is a tax"?

Is it true that the foreigner pays the import duty?

Do producers or consumers pay charges of transportation?

Do producers or consumers pay the profits of speculators?

Do lenders or borrowers pay for the risk element in the loan? Do consumers ultimately pay any part of this?

Does a tax on land by the acre fall on landlords? Tenants? Consumers?

Who would pay a percentage tax on rents?

On whom does a tax on residence property fall?

Where does a tax on a factory finally fall? A tax on

mortgages? On railroads? On dividends? On railroad stocks?

What do you think of a succession tax (tax on inheritances)?

Should taxation on incomes be progressive?

Should taxation on public franchises be progressive?

CHAPTER XVI

CONSUMPTION, STANDARDS OF LIFE, AND FASHION

163. In ancient times it was a question earnestly discussed by the logicians whether chickens came before eggs or eggs before chickens. Something like this puzzle is met in trying to decide whether demand precedes supply or supply demand — whether desire goes before production or production before desire. It seems, on the one hand, to go without saying, that no one would set himself to produce a thing unless he wanted it when produced. He might of course produce it to sell, but would care to sell only as he cared for the thing which he would get in return.

164. But, on the other hand, how shall one come to desire what he has never had? Use must precede habit. It is easy to go without that which one has never learned to want. One gets enmeshed in the same sort of logical tangle

Which is primary force, production or consumption?

in attempting to decide which existed first, labor or capital. Fortunately it doesn't much matter. So with demand and supply; they are not precisely inseparable, but never very widely part company. Which came first in the beginning of human life we need not ask. For modern men it is true that that which we are accustomed to we desire, and finally come more or less acutely to need. We desire also better things of the sort we have had, and more of them, and we find our desires extending to still other and different things, if only they are not too different. But inasmuch as men generally have to work for what they get, and early or late in the day find work a drag or a burden, it comes about that we stop work before all our wants are fully satisfied. Our desires thus always outrun our supplies, wherever supply does not come as a free and unlimited gift. Men work till the pain of more work outweighs the pain of unsatisfied want. It is therefore only desire that induces effort with its resulting product; but this resulting product is in turn a cause, fixing the desire and slowly establishing the need, while it also slowly opens the way to a wider sweep of need and desire.

Evidently enough, consumption must adapt itself to production, though it is equally clear that consumption furnishes the motive for production. That the savage in the African bush is a man of few desires and simple necessities is the larger part of his good fortune. His surroundings might possibly suffice for a larger life, if he had the physical and mental equipment to turn his opportunities to his advantage. Lacking the different forms of inner power, he is fortunate in his lack of desire. But in the last analysis it is the lack of ability to satisfy the desire which explains the absence of the desire.

The broad proposition toward which all this tends is that desires are strong approximately as realization is within the horizon of possibility. In more common phrase, the standards of living or of comfort in any society will be fixed by its productive efficiency.

165. We shall shortly return to examine this proposition more closely in its relations to the individual. But societies, at any rate, do not greatly desire what they have never had. The existence of the desire is the evidence that its satisfaction is not unknown. Patagonians are said to sleep naked on frozen ground with hoar frost for blankets. Harsh

The expansiveness of desires.

conditions grow bearable by use. This is merely another aspect of correspondence — of adaptation to environment. And yet, as we have seen, all this is consistent with expansiveness in needs and desires. The Patagonian, having accustomed himself to cold nights without bedding, would doubtless find himself uncomfortable under heavy blankets, yet would take kindly to light coverings, if they were to be had for the asking, and, once accustomed to these, would be glad of more. There is always this unsatisfied margin of desire. If the blankets become sufficient in quantity, there is indefinite room for expansion in quality. Each fulfilment brings its new margin of demand. The need for protection rises by successive stages from huts, straw pallets, and coarse furs, to palaces, canopied couches, and eider-down covers.

Keep constantly in mind, however, that this process of development is slow. Desire and satisfaction are bound closely together, each gaining by littles through the other. Demand grows only by what it feeds upon, like potatoes or fire or opium-eating. There is no utility until there is a corresponding need; and with any society the ability to enjoy never gets very

wide of the ability to produce. A few years ago the United States government built each brave of the Pawnee nation a house. Each brave set up his teepee by the side of the house, put his ponies in the house and himself in the teepee. The government asked too much of the Indian's expansiveness of desire; it overshot the mark. A little better teepee would have been a better present. These things do not move by large leaps.

In the expansiveness of human desires is found, for the temperate zones, the certitude of human progress and the security against stagnation of effort; in the slowness of expansion is discovered the secret of the indolence and ineffectiveness characteristic of human life in the tropics, where the bounty of nature so far outruns desires as to discourage effort. The same explanation applies in reverse order to the polar regions, where the disproportion between effort and its rewards often discourages all activity other than that essential to mere existence.

166. But is all of this true for individuals as well as for races? Yes, and no. It is true of the primary, the physical requirements — the need of food, clothing, and shelter. Expansiveness is espe-

Does this apply to the individual?

cially slow here. It is true even in the higher desires, in the realm of mind and thought — of music, poetry, and art, where satiation does not come and appetites do not fail, but rather grow with use. But what are we to make of the fact that, as applied to men separately, many commodities are prized not merely in proportion to their scarcity, but because of their scarcity — diamonds, for example? That which becomes common often seems to lose its savor; perhaps we should feel the loss, but it is somehow our harsh case that we realize the value only in the want. In daily life you and I appear to desire most vigorously that which we cannot have, and yet to care wondrous little for the thing if we finally get it. This is bad — looks bad for our theory, too.

Something more needs to be said. It is the penalty of any unworthy desire, not only that its pleasures endure but for a season, but also that in each attainment there is hidden its own peculiar disappointment. The pleasure is not what we thought it would be; only the skin of the apple had the glowing color; there was more advertised on the show bills than was exhibited in the tent. All goods which get their value to us merely by virtue of the fact that

others have them, or have them not, or think we ought to have them, are of this delusive sort.

167. Human desires may be broadly classified accordingly as they have to do primarily and directly (1) with self or (2) with fellow beings. We may term these desires (1) personal, (2) social. There is a lower and a higher in each.

Disappointing and non-disappointing desires.

Within the personal class must be included the desires for food, shelter, and clothing — the needs which go with the protection of life and to which we are subject through our physical necessities. These are the needs, differing only in degree, which we share with all animal life. Within this class also are the desires which go with the distinctively higher and human development in intellect — the thoughtful aspirations and interests, the literary, scientific, artistic, and musical tastes and loves. These endure not for a season merely. "Other interests are not suited to all times and seasons and places, but these serve as the grace of youth and the consolation of old age, as ornament for prosperity, as refuge and solace in ill fortune, a delight at home and a refreshment in the out-

side turmoil; these are with us always — in our nightly vigils, in our wanderings, at our country firesides" (Cicero). We have no need to condemn the everyday life of bread-winning, its needs and interests and rewards. All better living depends upon being able to live, and for all higher personal and social ends it is fundamental that we live honestly and by the right of effort. But in the things of thought there normally goes no disappointment, failure, or waste — no limit upon appetite — no disgust from satiation.

In the desires which primarily regard others there is likewise a lower and a higher, which we will term (1) the social and (2) the non-social, in the sense of the helpful and the non-helpful. With these also there go on one side decay and disappointment, on the other, increase and abiding joy. Whatever brings pleasure at another's loss or pain, hides within itself its own limitation and its ultimate destruction. It is like the rose with a worm at the heart. It is only the pleasure of doing good which surprises by its greatness and completeness. And so we return with a new meaning to our earlier words: "Those goods which get their value to us merely by virtue of

the fact that others have them, or have them not, are of this delusive sort."

168. The most important application of this principle is to the consumption of wealth in ostentation and display — in what may be broadly termed competitive show. After the neat and comfortable is attained, expenditure in style, or fashion, or elegance, ordinarily carries with it no great gratification, otherwise than in the unworthy consciousness of being admired or envied. Socially this outlay is waste or worse than waste. Each expends because others expend, and no one is the gainer. Thus material progress in the way in which we use it, — material progress, so far as it is directed to competitive show, — cancels itself in a strife for precedence; thereby we not only waste the product of our own energy by an automatic method of cancellation by averages, but in wasting our own share of product, we make, by comparison, our neighbor's share poor and mean and insufficient. We rob ourselves and yet filch from him. There is no share of gain in it for any one that does not stand for discontent and envy for some one else.

Ostentation.

The first law of ostentation is, then, this —

that all ostentation is waste; the second law, that the luxury of the rich not merely, in some slight degree through waste, causes, but, through discontent and by the method of comparison, *is* the poverty of the poor.

CHAPTER XVII

CONCLUSION

169. With the increase of knowledge in the modern world, with its advance in intellectual acquirement, its multiplied powers over the resources of nature, its new methods and new arts, its inherited wealth of achievement and unlimited promise of progress, there have grown up the new needs and the new desires which attach themselves to human life as the capacity for fulfilment increasingly falls within human reach. That the desires of men are safe to outrun their accomplishment has been sufficiently shown. It is therefore certain that there never has been or can be a surplus of production over the ability to consume. In the long adjustment markets will never fail the factory; new inventions and more effective machinery must forever remain the welcome auxiliaries of human effort — the facile servants of new wants.

What opportunity does the world offer to the young man or young woman? Are all things overdone?

Each human being born to the world adds a further demand to its markets as well as an increase of energy to its productive power. There may be over-production in some one or some few directions, but only in the sense that the production is disproportionate to the output of other commodities, and thereby entails a loss upon those producers who have been mistaken in their estimates. Low prices to the producer mean cheap consumption to the consumer. When, as a result of financial disturbance, or flurry, or panic, factories close and men fall to idleness and want, the evil in its very nature is one of need and not of surplus. That nation or that individual whose normal condition is want, and whose chronic disease is poverty, suffers by the very fact that in the environment as it exists, and with the abilities possessed, it is impossible adequately to solve the problem set by necessity. There is not too little but too much work to do. Wages are low because of small per capita product.

It follows that to suppose that there is increasing difficulty in finding a place and obtaining a foothold in the world, is to misunderstand the conditions of modern society, and to misin-

terpret the opportunities of modern life. The opportunities are yearly not less but more, the demand not smaller but greater, the remunerations not increasingly meagre but increasingly generous. When we are told, as we constantly are, that the professions are crowded and business everywhere overdone, that the clerkships will not go around, and that the applicants are more than the places, we may safely judge that, in so far as this is true, it means that the things which men most desire to do are not the things most desired to be done. It is possible to have too many doctors, lawyers, ministers, and teachers. Until half the demand of the world is for doctoring, preaching, teaching, and advising, it will not be possible for half the population of the world to be dignified members of the learned professions. The salesmen in the shops and the commercial travellers on the road must bear some sort of proportion to the goods which are to be marketed. So long as every lad especially voluble or quarrelsome believes himself to be set apart for the law, every quiet and earnest youth for the ministry, and all boys wanting in noticeable qualities of any sort for the medical profession or for teaching, it is certain that some of these professions

will be overdone. The supply in these lines readily outruns the demand.

There need be no lack of hope or effort because of this — there is always demand for the best; but it is well to face the fact that the demand is a limited demand, and that the places of social glitter and learned dignity cannot suffice for every high school graduate and every holder of a college degree. There is room for every worker only on condition that he is willing to do the work which is waiting to be done. In the breaking down of caste and class distinctions, in the popular institutions of this modern era with its wide and free competition, there is abundant place for ambition and ability and unlimited room for lives of usefulness; but it does not follow, and it is not true that, with the rising level of popular intelligence, and with the magnificent offer to rich and poor alike of advanced and thorough education, there can go with every case of liberal training a place of precedence and fortune. There is no lack of demand for skilled laborers and capable artisans. There is plenty of room for honest and respectable service, but not for choice or elegant service.

This truth holds for riches as for position.

The possibility of a reasonable competence, in the sense of independence and freedom from want, exists for each and all. Wealth, however, is relative, and is therefore in its very nature exceptional.

170. There is danger that from the almost exclusive attention of Political Economy to the phenomena of wealth-production and wealth-distribution, the truth may come to be obscured that the purpose of living is something more and something better than either position-getting or wealth-making. It must be constantly held in mind that wealth is at best only a means to an end. Political Economy does not purport to be the whole science of living. A full, symmetrical life rightly lived is the rational purpose of all effort. Political Economy makes many important additions to our knowledge of social relations and social duties. But that you have learned something of the methods and laws of trade and legislation does not involve the proposition that human life, its values, its purposes, and its success, are to be subjected to trade standards or measured by them.

What things are best worth getting?

The best things in life are not found in the

markets — cannot be bought and sold. Success in life is not merely to die rich. Wealth is only one of the good things, it is not the best thing; it may, indeed, not be a good thing. Made to measure success or to furnish the basis of social precedence, wealth may vitiate all social progress. That land fares ill in which materialism has become the social faith, in which politics has become a great game of business, where great fortunes command political victory and where victory commands great fortune. The scramble for wealth may become a disease and multiply diseases. Individual contentment, social safety, and race survival do not lie of necessity and always along this line. Material progress is a good thing only when it serves for higher ends, never when it displaces them. To forget this truth in the pursuit of wealth is "as if a man journeying home and finding a good inn upon the road, and liking it, were to stay forever at the inn. Man, thou hast forgotten thine object; thy journey was not to this but through this" (Epictetus).

This outlook upon life is not a hopeless one; but even were it so, truth is truth, and clear thinking will face it. That in the commercial sense, and according to prevailing standards,

most of us are born to fail, finds its consolation in the fact that life's highest purposes and sufficing pleasures lead us otherwhere.

In truth, if well-being were only to be found in wealth, if plain living and high thinking could not suffice for happiness, the lot of man would be indeed a harsh one. The places of leadership are of necessity few; commanders are such only as there are followers. "Power finds its place in lack of power." These things are relative; there are a hundred privates for one captain, hundreds of wage-earners to one factory-owner. It is not in the nature of things that the many lead; it would then be an ill world in which only the leaders could be glad.

171. It follows from all this that your years of study are not rightly to be devoted to a preparation for getting rich, or for acquiring honors of profession or place, but rather to acquiring fitness for whatever duty or opportunity may present itself. Make yourself ready for usefulness. Do not allow the zeal to be earning something to lead you half-educated into a position as clerk or errand-boy; this is to gain unfitness for the more enduring tasks and the greater oppor-

What is the purpose of culture?

tunities to come. Distrust all schemes of education which are called practical. Only in the broader and higher sense should school training be useful — never in a narrow meaning of trades and book-keeping and shorthand. See to it for yourself, and see to it one day for your children, that the money-chasing mania does not cast its blight over all the years and discipline of youth. No matter how hard we may strive that it be not so, the interests of bread-winning and of socially imposed place-hunting are certain to occupy us overmuch.

A new notion of the meaning of education needs to be adopted, and a saner measure of the importance and advantage that attach to it. With this new perspective there may come about for pupils and instructors a more rational spirit in education. If the schools succeed in fixing upon the student a false estimate of his sphere and duty in life, if the student emerges from the school with a distorted estimate of his individual importance, with a sense of unfitness in attempting the common lines of bread-winning, with distaste therefor and with certain discontent therein, he is not well but ill prepared for the life which he must lead, and society will almost surely suffer in the outcome. Educa-

tion should be a fitting and not an unfitting. Educated do-nothings and make-nothings had better have been left uneducated. They recruit the army of discontent — the livers by wit and device — the social outlaws, detected or successful.

We need join in no wholesale condemnation of education. The best things in the world come with it; but its promises and advantages are misconceived and the motives with which it is sought require amendment. To suppose that only the professional man needs to be well educated is a gross mistake. There is no culture too thorough for the ordinary bread-winner, while the doctor and the lawyer, if content to be commonplace hacks in their profession, can readily dispense with advanced training other than that of the special and professional schools. It is elsewhere than in the field, the shop, or the office, that complete and healthful living requires full mental and moral equipment and well-rounded intellectual powers. It is equally true that to the intelligence of the farmers and artisans and day-laborers and not to some saving power outside, must society look for its safety.

The schools should teach us how to use the wealth which we may later gain. The edu-

cated man has no great advantage over the uncultivated in the art of getting dollars, but only in the art of making dollars worth having when once they are gained. To get the best out of money is a secret which goes only with refined tastes and thoughtful interests. Education must indeed be a preparation for life, but a preparation in the art of living it — a period of acquirement of purposes, tastes, and aspirations, of broad, earnest, generous interest in the things of thought.

With the right things studied in the schools — rightly taught and rightly learned — intellectual life will not cease with the years of school attendance. The development afforded by the active life of politics and money-getting is one-sided and inadequate; the inner life suffers. The better part of education must then lie in the creation of an effective, abiding interest in the things worth knowing. School has essentially missed its purpose if it has failed to fill you with questionings, and doubts, and interests, whereby all the phenomena of nature and society may stand to you for interrogation points, and every incident and experience furnish its fund of suggestion for thought and its stimulus for growth.

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